

CONFERENCE ON DISARMAMENT

CD/1090
17 July 1991

Original: ENGLISH

LETTER DATED 11 JULY 1991 FROM THE PERMANENT REPRESENTATIVE OF FINLAND ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE LATEST VOLUME OF THE BLUE BOOK SERIES ON VERIFICATION OF CHEMICAL DISARMAMENT ENTITLED "INTERNATIONAL INTERLABORATORY COMPARISON (ROUND-ROBIN) TEST FOR THE VERIFICATION OF CHEMICAL DISARMAMENT; P.2 TESTING OF PROCEDURES ON SIMULATED INDUSTRY SAMPLES" 1/

I have the honour to enclose herewith the latest volume of the Blue Book series on verification of chemical disarmament entitled "International Interlaboratory Comparison (round-robin) Test for the Verification of Chemical Disarmament: P.2 Testing of Procedures on Simulated Industry Samples".

The Previous 15 volumes of the Blue Book series have been research reports of the Finnish CW Verification Project. The present report describes the results of an experiment with participation from 15 different countries and coordinated by Finland. The presentation of this report would not have been possible without close cooperation by all participants throughout the experiment and it should indeed be considered as a joint contribution of all 16 laboratories.

I would kindly request you to circulate the report as an official document of the Conference on Disarmament.

I also wish to inform you that Dr. Marjatta Rautio, Director of the Finnish Research Project on the Verification of Chemical Disarmament, will introduce the report on behalf of the participating laboratories at the plenary meeting of the Conference on Disarmament on Thursday, 25 July 1991.

(Signed) Antti Hynninen
Ambassador
Permanent Representative
of Finland

1/ A limited distribution of this volume in English only has been made available to the members and non-members invited to participate in the work of the Conference on Disarmament. Additional copies are available from the Permanent Mission of Finland at Geneva.

CONFIDENTIALITY INDICATOR

CONFERENCE ON DISARMAMENT

CD/1091
24 July 1991

Original: ENGLISH

LETTER DATED 22 JULY 1991 FROM THE PERMANENT REPRESENTATIVE
OF PAKISTAN ADDRESSED TO THE SECRETARY-GENERAL OF THE
CONFERENCE ON DISARMAMENT TRANSMITTING A STATEMENT MADE
BY HIS EXCELLENCY, MR. NAWAZ SHARIF, PRIME MINISTER OF
THE ISLAMIC REPUBLIC OF PAKISTAN, ON 6 JUNE 1991 AT THE
NATIONAL DEFENCE COLLEGE, RAWALPINDI, PAKISTAN

I have the honour to transmit herewith a major policy statement made by
His Excellency, Mr. Nawaz Sharif, Prime Minister of the Islamic Republic of
Pakistan, on 6 June 1991, at the National Defence College, Rawalpindi,
Pakistan.

I should be grateful if the present letter and its annex could be
circulated as an official document of the Conference on Disarmament.

(Signed) Ahmad Kamal
Ambassador and Permanent Representative

Statement made on 6 June 1991 at the National Defence College,
Rawalpindi, Pakistan, by the Prime Minister of Pakistan

In discussing national security, it is important to recognize that internal strength is of primary significance. My Government, therefore, attaches the highest priority to a strong defence in order to deter any threat to our national security. The strength of our own armed forces provides us the strongest guarantee for the maintenance of a peaceful environment for the country. My Government would, therefore, continue to do all that is possible to ensure that our armed forces are well equipped and prepared to safeguard Pakistan's security and territorial integrity.

History teaches us that the vital importance of the armed forces notwithstanding, successful defence of any country is dependent on the overall strength of that country. Factors such as the moral and spiritual foundations of the society, political stability, social cohesion and harmony, economic strength and technological advancement provide the underpinning and constitute the backbone of its defence capability. Our survival and progress as a nation will, therefore, depend, in the ultimate analysis, upon our success in acquiring internal strength. Only then would we be able to ward off external threats to our security.

Our foremost objective is to establish a progressive, dynamic and just socio-economic order in the country. Only by doing so would we be able to accelerate economic development, hasten the pace of technological advancement and raise the standard of living of the people. Only thus would the nation acquire strength and enter the twenty-first century with confidence and dignity.

This is not an easy task. We face numerous problems and difficulties, both internally and externally. But I am confident that by maintaining unity, faith and discipline in our ranks, and by fully harnessing our resources, we can realize our goals.

We have already taken a number of steps with this aim in view. We are encouraging the private sector to engage in productive activity. We have liberalized the economy and done away with rules and regulations, which had stifled private initiative in the past. We have introduced reforms for the elimination of foreign exchange restrictions and for creating a liberal environment for foreign private investment in the country. We are also disinvesting State corporations, which were a heavy burden on the national exchequer.

We have resolved the vexed issues of apportionment of river waters and the distribution of financial resources between the federal and provincial governments. We have steered through the Parliament a progressive, democratic and welfare-oriented Shariah bill.

We are taking strong measures to curb crime and lawlessness, eradicate the Kalashnikov culture and put an end to drug trafficking, which are eating into the vitals of our society. These steps would strengthen social harmony and stability. They would also promote economic activity by encouraging domestic and foreign investment in the country.

These reforms and measures will impart vitality and dynamism to the economy and polity, enabling us to achieve self-sustained growth and self-reliance. Self-reliance certainly does not mean isolation. No nation can afford to isolate itself from the rest of the international community in the increasingly interdependent world of today. A policy of self-reliance means primarily to depend on our own resources for improving the lot of our people. But it does not exclude mutually beneficial economic cooperation with friendly countries without compromising our national sovereignty or self-respect.

The pursuit of rapid economic development and social progress presupposes an environment of peace and security. Thus, my Government is guided by the twin objectives of progress at home and peace abroad. Pakistan will, therefore, continue to follow the policy of developing friendly relations with all countries on the basis of the principles of sovereign equality, non-interference in internal affairs and peaceful settlement of disputes.

We are gratified to note that the United Nations has assumed a more effective role in the settlement of regional disputes and conflicts. It would be our endeavour to strengthen this trend, which, we believe, is in the best interest of international peace and progress. We also hope that the five permanent members of the Security Council would play their due role in ensuring respect for the purposes and principles of the Charter of the United Nations.

We have taken an initiative for expediting the political settlement of the Afghanistan issue. We have entered into consultations with the Secretary-General of the United Nations and the countries concerned. We have welcomed the five-point initiative for the settlement of the Afghanistan issue announced by the Secretary-General last month. The key to such a settlement remains in the transfer of power from the Najibullah regime to a broad-based government in Kabul established in accordance with the wishes of the people of Afghanistan. Only such a broad-based government can restore peace in the country and enable the Afghan refugees to return voluntarily to their homeland. The settlement of the Afghanistan issue would remove a major obstacle in the improvement of our relations with the Soviet Union, in which we are deeply interested.

The Islamic world, with which Pakistan has special links, has suffered grievously because of the Iraqi occupation of Kuwait, which led to the Gulf War. We took a principled position on the issue in accordance with the relevant Security Council resolutions. We were gravely concerned because Iraq's action violated recognized norms of inter-State conduct. It also posed a serious threat to the security of Saudi Arabia, a fraternal country, which has always stood by Pakistan's side.

We made efforts to find a peaceful and honourable solution of the problem. For this purpose, I undertook visits to 12 Islamic countries and sent special envoys to 13 others. Unfortunately, my efforts and those of the international community did not succeed. The armed conflict has caused massive material destruction and heavy loss of human life, particularly in Kuwait and Iraq.

Following the liberation of Kuwait and restoration of peace in the area, I visited Kuwait and assured the Amir and his Government that Pakistan was ready to continue the tradition of cooperation with Kuwait and other regional States and would support their efforts to strengthen peace and stability in the region. It will be our endeavour to develop further bilateral ties with these countries in political, economic, technical and other fields. Pakistan stands for moderation, stability and cooperation among the Islamic countries of the Gulf region.

Pakistan will continue to strengthen its close and brotherly relations with the Islamic Republic of Iran and Turkey. We take deep satisfaction in the recent decisions of the three countries to revitalize the Economic Cooperation Organization and to hold a summit conference of these three fraternal States before the end of 1991 to advance this cooperation.

Friendship with China has been a cornerstone of Pakistan's foreign policy and a source of strength to regional peace and stability. We will continue our efforts to develop close and friendly relations and mutually beneficial cooperation with China.

Pakistan values its friendship with Japan, which has emerged as an economic super-Power. It is Pakistan's largest trading partner. The two countries also maintain close cooperation in various fields. My Government will pay special attention to the strengthening of friendly ties with Japan.

We are impressed by the fast economic growth achieved by several countries of the Asia-Pacific region. Their experience offers us important lessons. It would be our effort to promote friendly ties and mutually beneficial cooperation with these countries. We shall also intensify our efforts to promote closer cooperation with African nations in political, economic, commercial and technical fields.

Europe is undergoing a process of rapid transformation and integration. Pakistan attaches importance to its relations with the region and wishes to develop them further. It is our hope that the European single market, which will come into existence in 1992, will provide easier access to imports from the developing countries.

The developing countries currently face serious problems of low level of developmental assistance, the heavy burden of debt servicing, negative resource flows, an unfavourable international trade regime, adverse terms of trade and an unjust international financial and monetary system. We will continue our efforts to promote North-South dialogue with a view to overcoming these problems.

Pakistan, as a developing country, has close identity of views with other third world countries on important international political and economic issues. We wish to develop further third world solidarity through the promotion of South-South cooperation.

India's military build-up, development of medium-range missiles and the military potential of its unsafeguarded nuclear programme pose a serious threat to Pakistan's security. The threat is accentuated by India's refusal

to resolve the Kashmir dispute peacefully and its attempt to suppress the indigenous uprising in occupied Kashmir through massive and brutal use of force. India has concentrated over 400,000 military and paramilitary forces in occupied Kashmir for this purpose. The heavy deployment of its forces along the Pakistan-India border also serves to heighten tension. This cannot, however, prevent us from offering moral and political support to the struggle of the Kashmiri people for the exercise of their right to self-determination, as recognized by the relevant United Nations Security Council resolutions.

In the face of this serious situation, Pakistan cannot be oblivious to the requirements of its security. Nevertheless, we will continue our efforts for establishing good neighbourly relations with India. A beginning was made at Male during the summit of the South Asian Association for Regional Cooperation last November. My recent visit to New Delhi to attend the funeral of Mr. Rajiv Gandhi enabled me to establish personal contacts with leaders of India's main political parties. I was encouraged by the positive response to our desire to improve bilateral relations. We hope that once the new Government has assumed power in New Delhi after the elections, it will be possible for us to move forward towards the establishment of tension-free relations and the settlement of the Kashmir dispute in accordance with the relevant United Nations resolutions. This would be in the spirit of Male and that of the Simla Agreement, and would enable the two countries to devote their scarce resources to the improvement in the quality of life of their peoples.

The issue of nuclear non-proliferation in South Asia is another complicating factor in Pakistan-India relations. It is, therefore, necessary to place the issue in its proper perspective.

We suffer from a serious energy shortage, which not only hampers economic and industrial growth, but causes hardship to our people. In view of our ever-growing energy requirements, we have no option but to rely on the generation of nuclear power for meeting the needs of our expanding economy.

Unfortunately, our efforts to develop nuclear energy and technology for peaceful purposes have been subjected to unfair criticism and discriminatory pressures. We have repeatedly asserted that our nuclear programme is devoted to peaceful purposes. In pursuance of our regional approach to nuclear non-proliferation, we have expressed our willingness to accept any equitable and non-discriminatory regime for keeping South Asia free of nuclear weapons.

We have made the following proposals to prevent nuclear proliferation in South Asia:

(a) Establishment of a nuclear-weapon-free zone in South Asia, a proposal that has been endorsed repeatedly by the General Assembly since 1974;

(b) In view of India's opposition to the establishment of a nuclear-weapon-free zone in South Asia, we proposed in 1978 that, as a first step, Pakistan and India should issue a joint declaration renouncing the acquisition or manufacture of nuclear weapons;

(c) In 1979, Pakistan proposed an agreement with India on a system of bilateral inspection of all nuclear facilities on a reciprocal basis;

(d) We also proposed in 1979 simultaneous acceptance of the International Atomic Energy Agency (IAEA) safeguards by Pakistan and India on all nuclear facilities;

(e) Pakistan expressed its readiness in 1979 to accede to the Treaty on the Non-Proliferation of Nuclear Weapons simultaneously with India;

(f) Later in 1987, Pakistan proposed the conclusion of a bilateral or regional nuclear-test-ban treaty;

(g) In 1987, Pakistan also proposed the convening of a conference on nuclear non-proliferation in South Asia, under the auspices of the United Nations and with the participation of regional and other interested States.

The above proposals have been reiterated by us from time to time. Pakistan's commitment to nuclear non-proliferation, both at global and regional levels, is thus clear and unwavering. It is not fair, therefore, to cast doubts on Pakistan's intentions and to subject Pakistan to discriminatory treatment. No self-respecting nation can accept that.

We are gratified to note that the regional approach to disarmament is steadily gaining ground in international circles. Our resolution calling for initiatives for confidence-building measures, nuclear non-proliferation and conventional disarmament at regional and subregional levels was adopted by the General Assembly in 1990 by an overwhelming majority of 142 votes in favour, none against and 10 abstentions.

Nuclear-weapon-free zones have already been established in Latin America and the South Pacific region with the endorsement of the five nuclear-weapon States. Similar proposals have been advanced concerning other regions. Last year, Argentina and Brazil signed an agreement to use nuclear energy exclusively for peaceful purposes. They also agreed to submit their nuclear programmes to bilateral inspection and, later, to IAEA safeguards to ensure the peaceful character of their nuclear programmes.

More recently, President Bush has announced a major initiative for arms control on a regional basis in the Middle East. Among other things, the initiative calls for steps by all the regional States to prevent nuclear proliferation in the Middle East. France has also in its recently announced disarmament proposal called for regional regimes for the prohibition of weapons of mass destruction.

We firmly believe that nuclear non-proliferation in South Asia is a sine qua non for regional peace and progress. We are willing to enter into a bilateral arrangement with India or a regional regime for ensuring that South Asia remains free of all weapons of mass destruction. We are prepared to adopt measures aimed at a mutual and balanced reduction of forces

consistent with the principle of equal and undiminished security at the lowest level of armaments. However, we cannot and will not take unilateral steps that endanger our national security.

Pakistan and the United States of America have a history of friendship going back to the 1950s. This friendship is solidly based on our shared beliefs in principles and human values, our common commitment to democratic institutions, the respect we attach to individual liberty and sustained cooperation stretching over several decades. There is a close convergence of views on such issues as Afghanistan and regional peace and stability. Therefore, despite the occasional ups and downs, the friendship between Pakistan and the United States has continued with the passage of time and manifested itself in the expansion of mutual cooperation in diverse fields.

Against this background, the current difficulties in Pakistan-United States relations are particularly regrettable. This relationship, which has served the interests of the two countries so well in the past and has so much potential for the future, should not be allowed to be impaired.

It is an irony that the current difficulties in Pakistan-United States relations stem from differences of approach to the objective of nuclear non-proliferation, to which both are deeply committed. The United States has focused almost exclusively on Pakistan's nuclear programme. The fact is that India exploded a nuclear device in 1974. It has a number of nuclear enrichment and reprocessing facilities outside the framework of IAEA safeguards. It is also reported to have unsafeguarded plutonium sufficient for producing over 100 Hiroshima-size nuclear bombs. We cannot, therefore, ignore India's fast-growing nuclear programme and jeopardize our national security.

Pakistan is ready to enter into multilateral consultations for promoting the cause of nuclear non-proliferation in South Asia. There are indications that the United States, the Soviet Union and China might be inclined to support a regional approach. I hope that they would be willing to move together with Pakistan and India to achieve the objective of keeping our region free of nuclear weapons.

I would like to propose specifically that the United States, the Soviet Union and China consult and meet with India and Pakistan to discuss and resolve the issue of nuclear proliferation in South Asia. The aim of the meeting should be to arrive at an agreement for keeping this region free of nuclear weapons on the basis of proposals already made or new ideas that may emerge. The nuclear non-proliferation regime to be negotiated during the proposed multilateral consultations should be equitable and non-discriminatory.

We hope that the proposal would receive an early response from the countries concerned so that arrangements can be finalized and the conference held as quickly as possible.

A regional non-proliferation regime, containing guarantees for non-nuclear-weapon States and agreed to by all the regional countries, is a practical method of resolving the problem in all its dimensions. Such a

regime would help usher in a climate of mutual trust and strengthen peace and security in South Asia, enabling the States of the region to concentrate their energies and efforts on accelerating economic development and promoting the well-being of their peoples.

I have decided to send to the United States a high-level delegation led by Mr. Wasim Sajjad, Chairman of the Senate, and including Mr. Akram Zaki, Secretary-General, Foreign Affairs, and other senior officials to exchange views on the whole range of Pakistan-United States relations. We must acquire a better understanding of each other's point of view on various issues such as Afghanistan, regional peace and security, human rights, narcotics control, disarmament, nuclear non-proliferation and cooperation in various fields.

Given sincerity of purpose and mutual goodwill, I am confident that we will ultimately succeed in resolving our current difficulties on the basis of mutual understanding and accommodation. Our search for a way out of the current impasse will be facilitated if each side tries to understand the compulsions of the other and focuses on ultimate objectives rather than the means for achieving them.

Let me conclude by reiterating our desire to develop friendly relations and mutually beneficial cooperation on the basis of equality with all countries, big and small, to serve the interest of international peace and development. We will strive in particular to create a tension-free and peaceful environment in South Asia to usher in an era of progress and prosperity in the region.

CONFERENCE ON DISARMAMENT

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CD/OS/WP.46
1 August 1991

ENGLISH
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WORKING PAPER

FRANCE

PREVENTION OF AN ARMS RACE IN SPACE: MEASURES TO PROMOTE CONFIDENCE AND TRANSPARENCY

In its arms control and disarmament plan of 3 June 1991 (CD/1079), France reaffirmed the need for "the development of **outer-space confidence-building measures** in the form of a 'code of conduct' for civilian and military satellites". In addition, it proposed the establishment of **regional agencies** responsible for transparency, which could receive and use satellite images in the context of regional agreements on confidence and security.

The objectives to which these proposals are directed are well known. They underlay the French memorandum on the military uses of space submitted to the Conference on Disarmament on 14 April 1983 (CD/375). This memorandum related to the progressive development of a stable and clear space regime, by means of the strengthening of the existing system of information on space objects and promotion of the principle of immunity granted to certain space objects. France, which upholds its 1978 proposal for an international satellite monitoring agency (ISMA) and its 1988 proposal for a satellite image processing agency (SIPA), is convinced that a regional approach to the use of satellite images could make a decisive contribution to strengthening confidence and security.

The procedure proposed by France would, in its view, enhance the security of peaceful activities in space (and indirectly prevent the use of space for

aggressive purposes), while at the same time, by harnessing space for the purpose of confidence and security, facilitating access to space by all interested States and promoting cooperation in space for civilian and scientific purposes.

I - CONFIDENCE-BUILDING MEASURES IN SPACE

In France's view, any legal regime for promoting confidence must be based on the principle of **non-interference** with non-aggressive activities in space, the strengthening of the 1975 Convention on the **registration** of space objects and the drawing up of a "code of conduct in space", which might be complemented by measures to provide information on the occasion of the **launching** of space objects.

1 - The principle of non-interference

With the rise in the quantity of orbiting space objects and the number of space Powers, as well as potentially dangerous technological capabilities, the risks to security in space activities increase. France considers that the time has come to lay down a more reliable regime for satellites in orbit.

As has been shown by the discussions in the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, one of the essential concerns is that of how to protect satellites which merit protection. Consequently, France wishes to propose a criterion whereby a satellite is or is not protected depending on its aggressive capacity. In this way, a satellite possessing a capability for active interference would enjoy no protection.

On the model of the immunity mutually granted by the two main space Powers to their "national means of verification" of their bilateral disarmament agreements (in view of the fact that these space facilities play a stabilizing function), France considers that the principle of non-interference would constitute a first step towards internationally recognized immunity of satellites. Within the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, the discussion might focus, first, on the **technical parameters** to be used to determine a satellite's capability for active interference, and, second, the possible **juridical formulation** of the principle of non-interference.

2 - Strengthening of the 1975 Convention on the registration of space objects

The 1975 registration Convention, which was initially designed as a way of facilitating the application of the 1972 Convention on International Liability for Damage Caused by Space Objects, offers considerable potential

for enhancing the transparency of space activities, which is vital for any regime to promote confidence. Currently, the register set up under article IV requires only the following information concerning each space object:

- Name of launching State;
- Registration number;
- Date and location of launch;
- Basic orbital parameters (nodal period, inclination, etc.);
- General function of the space object.

In order to enhance knowledge of spacecraft, and in particular to clarify responsibilities in the event of an incident, France proposes that the register should also include the following information:

- The orbital characteristics of each satellite;
- Details of its manoeuvrability;
- Information on energy sources available on board;
- Certain other functional characteristics (mass, size, expected life of the space vehicle).

This could give concrete form to the possibility - provided for in article IV, paragraph 2 of the Convention - of furnishing the United Nations Secretary-General with additional information relating to the space object. In France's view, this broadening of the scope of the register should be effected on a voluntary, negotiated basis among the States parties. This would be in keeping with the proposals already made, *inter alia*, by Australia and Canada in 1988 (CD/OS/WP.25), Poland in 1989 (CD/OS/WP.38) and Argentina in 1990 (CD/1015 - CD/OS/WP.42), as well as the Federal Republic of Germany (Ad Hoc Committee, 17 July 1990). The latter proposed in particular that further information should be added to the register (authority responsible for launch and control, presence or absence of weapons on board). France stands ready to give favourable consideration to adding these details to the registration Convention, as well as the possibility of informing the United Nations Secretary-General of launch forecasts.

Furthermore, since experience to date has been unsatisfactory, France calls upon the States parties to reduce the time taken to notify the Secretary-General of information and to update such information regularly. Lastly, it seeks an increase in the number of States parties to the Convention.

3 - Rules of behaviour

The aim of a "code of conduct", as advocated by France (CD/937) and by Germany (CD/PV.345 and 516), is to guarantee the security of space activities while preventing the use of space for aggressive purposes. From the viewpoint of the prevention of an arms race, what is most important is to be able at any time to distinguish an incident of fortuitous or accidental origin from the result of specific aggression. To that end, it is suggested that a set of rules of behaviour should be drawn up, which might include:

- an obligation to **regularly update orbital parameters** declared at the time of registration, to take account of manoeuvres and drift;
- respecting **minimum distances** between two satellites placed in the same orbit (in order to avoid not only accidental collisions but also short-range co-orbital tracking, which is a precondition for the system of space mines);
- monitoring of **short-range intersections** (also to limit risks of collision or interference).

Combined with a strengthened registration procedure, such a set of rules should provide better information on a continuous basis concerning potential threats to each satellite, and prevent aggression by making it impossible for such aggression to go unpunished because of failure to determine its precise origin. These rules might be supplemented by:

- the above-mentioned measure relating to **information on launches scheduled by States**;
- a procedure providing for **requests for explanations** in the event of an incident or suspicious activities;
- the identification of **keep-out zones** in the form of two spherical zones moving with each satellite:
 - a **proximity zone** to delimit the location of each space object in orbit, as well as the capabilities of each object to move with respect to the others;
 - a wider **approach zone**, with obligatory notification for passage through it.

4 - Measures to provide information on the occasion of the launching of space objects

In 1989, Poland suggested (CD/OS/WP.38) that it would be useful, in the field of the prevention of an arms race in outer space, to draw on experience

built up in the application of confidence-building and security-building measures by the States participating in CSCE. Specifically, Poland proposed measures for the exchange of information and observations on the occasion of launches of space objects. France stands ready to give favourable consideration to a measure providing for **assessment visits** at the launch site or orbital control site of a registered space object. It is aware of the possible difficulties or objections that such a measure might prompt, and considers that such visits should take place on a voluntary basis: only a State which had expressly agreed to such an inspection could be visited.

Hence France proposes that the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space should give thought to the circumstances in which such measures might be feasible, drawing on experience accumulated within the CSCE framework.

II - SPACE AND TRANSPARENCY

As the French arms control and disarmament plan states, "information is the prime condition of confidence". In order to allow the smooth operation of a system of confidence-building measures in space, France proposed in 1989 (CD/937) the establishment of a **centralized trajectography system**. Moreover, as the potential contribution of satellite images in the implementation of regional agreements on security and confidence is increasingly widely recognized, France proposes the establishment of **regional agencies responsible for transparency**.

A - The international trajectography centre (UNITRACE)

Compliance with and effective application of the broadened rules for registration and the rules of behaviour that would be drawn up under a regime of confidence-building measures imply the establishment of an international management tool with the function of accumulating all the information gathered and making it available to satellite managers. It would be designed to alert the States concerned in the event of threatened incidents and to supply evidence of good or bad faith in the event of an incident (which would minimize the risk of international disputes), and it should meet the requirement of transparency and be in permanent possession of updated information concerning the trajectories of space objects.

At the same time, if it is to be acceptable to satellite-owning States, such a centre must observe a degree of confidentiality in respect of military

activities in space. Under the auspices of the United Nations Secretariat, it would have the following functions:

- collection of data for updating registrations;
- monitoring of space objects;
- real time calculation of all available trajectories.

It would keep the information without distributing it and would alert only the State or States concerned where necessary.

The proposal recently put forward by Canada (CD/1088) whereby all space objects would be equipped with beacons to enable them to be identified at all times deserves thorough study, since, if it was proved to be feasible, it might considerably facilitate the task of an international trajectography centre.

B - Regional agencies responsible for transparency

France has long considered that the pooling of information gathered by satellites can make an effective contribution to transparency, which is itself a vital component of security. This was the objective France sought when it proposed to the United Nations in 1978 an international satellite monitoring agency (ISMA), and in 1988 a satellite image processing agency (SIPA). Noting that the regional approach to disarmament and security is increasingly widely recognized as essential by the international community, France considers that the implementation of regional agreements on confidence and security could draw to an increasing extent on the use of satellite images. This approach links up with the philosophy of the "PAXSAT-B" concept put forward by Canada in 1987 (CD/PV.410).

Taking the example of Europe, which already has experience in the application of a regional system of confidence-building and security-building measures, and which has recently strengthened the institutional machinery underpinning that system (cf. documents CD/1043: Charter of Paris for a New Europe, and CD/1070: Vienna Document on confidence- and security-building measures in Europe), it is France's wish that the existing CSCE Conflict Prevention Centre should shift towards a transparency function, in particular through the use of the data generated by an "open skies" agreement and by satellite images. It suggests that the other regions should make provision for the use of such machinery under regional agreements on confidence and security.

France itself, which is convinced that improved information can enhance security, is prepared to contribute to the establishment and operation of such regional agencies in three forms:

assistance in **training specialists** in the interpretation of satellite data;

study of the possible structure and size of the **reception facilities** (equipment) which might be made available to States participating in such agencies;

initiation of more far-reaching consideration of the question of access to data and satellite information and **discussions with other countries producing space images**, with a view to possible agreements to supply regional agencies at their request with the information they need to perform their tasks.

Discussions in the Conference on Disarmament in recent years have shown that the great and urgent need for thorough consideration of the establishment of a regime of confidence-building measures in space are increasingly recognized by the international community. Among the topics tackled by the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, it would seem that this is the topic offering the best prospects for the future. France joins other member States in hoping that its contribution will contribute to progress towards a consensus in this field.

CONFERENCE ON DISARMAMENT

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1 August 1991

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WORKING PAPER

FRANCE

PREVENTION OF AN ARMS RACE IN SPACE: CONFIDENCE-BUILDING MEASURES AND TRANSPARENCY

In its arms control and disarmament plan of 3 June 1991 (CD/1079), France reaffirmed the need for "the development of **outer-space confidence-building measures** in the form of a 'code of conduct' for civilian and military satellites". In addition, it proposed the establishment of **regional agencies responsible for transparency**, which could receive and use satellite images in the context of regional agreements on confidence and security.

The objectives to which these proposals are directed are well known. They underlay the French memorandum on the military uses of space submitted to the Conference on Disarmament on 14 April 1983 (CD/375). This memorandum advocated the progressive development of a stable and clear space regime, by means of the strengthening of the existing system of information on space objects and promotion of the principle of immunity granted to certain space objects. France, which upholds its 1978 proposal for an international satellite monitoring agency (ISMA) and its 1988 proposal for a satellite image processing agency (SIPA), is convinced that a regional approach to the use of satellite images could make a decisive contribution to strengthening confidence and security.

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* Re-issued for technical reasons

aggressive purposes), while at the same time, by harnessing space for the purpose of confidence and security, facilitating access to space by all interested States and promoting cooperation in space for civilian and scientific purposes.

I - CONFIDENCE-BUILDING MEASURES IN SPACE

In France's view, any legal regime of confidence-building measures must be based on the principle of **non-interference** with non-aggressive activities in space, the strengthening of the 1975 Convention on the **registration** of space objects and the drawing up of a "**code of conduct in space**", which might be complemented by measures to provide information on the occasion of the **launching** of space objects.

1 - The principle of non-interference

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On the model of the immunity mutually granted by the two main space Powers to their "national means of verification" of their bilateral disarmament agreements (in view of the fact that these space facilities play a stabilizing function), France considers that the principle of non-interference would constitute a first step towards **internationally recognized immunity** of satellites. Within the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, the discussion might focus, on the one hand, on the **technical parameters** to be used to determine a satellite's capability for active interference, and, on the other hand, on the possible **juridical formulation** of the principle of non-interference.

2 - Strengthening of the 1975 Convention on the registration of space objects

The 1975 registration Convention, which was initially designed as a way of facilitating the application of the 1972 Convention on International Liability for Damage Caused by Space Objects, offers considerable potential

for enhancing the transparency of space activities, which is vital for any regime to promote confidence. Currently, the register set up under article IV requires only the following information concerning each space object:

- Name of launching State;
- Registration number;
- Date and location of launch;
- Basic orbital parameters (nodal period, inclination, etc.);
- General function of the space object.

In order to enhance knowledge of spacecraft, and in particular to clarify responsibilities in the event of an incident, France proposes that the register should also include the following information:

- The orbital characteristics of each satellite;
- Details of its manoeuvrability;
- Information on energy sources available on board;
- Certain other functional characteristics (mass, size, expected life of the space vehicle).

This could give concrete form to the possibility - provided for in article IV, paragraph 2 of the Convention - of furnishing the United Nations Secretary-General with additional information relating to the space object. In France's view, this broadening of the scope of the register should be effected on a voluntary, negotiated basis among the States parties. This would be in keeping with the proposals already made, inter alia, by Australia and Canada in 1988 (CD/OS/WP.25), Poland in 1989 (CD/OS/WP.38) and Argentina in 1990 (CD/1015 - CD/OS/WP.42), as well as the Federal Republic of Germany (Ad Hoc Committee, 17 July 1990). The latter proposed in particular that further information should be added to the register (authority responsible for launch and for control, presence or absence of weapons on board). France stands ready to give favourable consideration to adding these details to the registration Convention, as well as the possibility of informing the United Nations Secretary-General of launch forecasts.

Furthermore, since experience to date has been unsatisfactory, France calls upon the States parties to reduce the time taken to notify the Secretary-General of information and to update such information regularly. Lastly, it seeks an increase in the number of States parties to the Convention.

3 - Rules of behaviour

The aim of a "code of conduct", as advocated by France (CD/937) and by Germany (CD/PV.345 and 516), is to guarantee the security of space activities while preventing the use of space for aggressive purposes. From the viewpoint of the prevention of an arms race, what is most important is to be able at any time to distinguish an incident of fortuitous or accidental origin from the result of specific aggression. To that end, it is suggested that a set of rules of behaviour should be drawn up, which might include:

- an obligation to regularly update orbital parameters declared at the time of registration, to take account of manoeuvres and drift;
- respecting minimum distances between two satellites placed in the same orbit (in order to avoid not only accidental collisions but also short-range co-orbital tracking, which is a precondition for the system of space mines);
- monitoring of short-range intersections (also to limit risks of collision or interference).

Combined with a strengthened registration procedure, such a set of rules should provide better information on a continuous basis concerning potential threats to each satellite, and prevent aggression by making it impossible for such aggression to go unpunished because of failure to determine its precise origin. These rules might be supplemented by:

- the above-mentioned measure relating to information on launches scheduled by States;
- a procedure providing for requests for explanations in the event of an incident or suspicious activities;
- the identification of keep-out zones in the form of two spherical zones moving with each satellite:
 - a proximity zone to delimit the location of each space object in reciprocal orbit, as well as the capabilities of each object to move with respect to the others;
 - a wider approach zone, with obligatory notification for passage through it.

4 - Measures to provide information on the occasion of the launching of space objects

In 1989, Poland suggested (CD/OS/WP.38) that it would be useful, in the field of the prevention of an arms race in outer space, to draw on experience

built up in the application of confidence-building and security-building measures by the States participating in the CSCE. Specifically, Poland proposed measures for the exchange of information and observations on the occasion of launches of space objects. France stands ready to give favourable consideration to a measure providing for **assessment visits** at the launch site or orbital control site of a registered space object. It is aware of the possible difficulties or objections that such a measure might prompt, and considers that such visits should take place on a voluntary basis: only a State which had expressly agreed to such an inspection could be visited.

Hence France proposes that the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space should give thought to the circumstances in which such measures might be feasible, drawing on experience accumulated within the CSCE framework.

II - SPACE AND TRANSPARENCY

As the French arms control and disarmament plan states, "information is the prime condition of confidence". In order to allow the smooth operation of a system of confidence-building measures in space, France proposed in 1989 (CD/937) the establishment of a **centralized trajectography system**. Moreover, as the potential contribution of satellite images in the implementation of regional agreements on security and confidence is increasingly widely recognized, France proposes the establishment of **regional agencies responsible for transparency**.

A - The international trajectography centre (UNITRACE)

Compliance with and effective application of the broadened rules for registration and the rules of behaviour that would be drawn up under a regime of confidence-building measures imply the establishment of an international management tool with the function of accumulating all the information gathered and making it available to satellite managers. Since it would be designed to alert the States concerned in the event of threatened incidents and to supply evidence of good or bad faith in the event of an incident (which would minimize the risk of international disputes), it should meet the requirement of transparency and be in permanent possession of updated information concerning the trajectories of space objects.

At the same time, if it is to be acceptable to satellite-owning States, such a centre should be able to observe a degree of confidentiality in respect

of military activities in space. Under the auspices of the United Nations Secretariat, it would have the following functions:

- collection of data for updating registrations;
- monitoring of space objects;
- real time calculation of all available trajectories.

It would keep the information without distributing it and would alert only the State or States concerned where necessary.

The proposal recently put forward by Canada (CD/1088) whereby all space objects would be equipped with beacons to enable them to be identified at all times deserves thorough study, since, if it was proved to be feasible, it might considerably facilitate the task of an international trajectography centre.

B - Regional agencies responsible for transparency

France has long considered that the pooling of information gathered by satellites can make an effective contribution to transparency, which is itself a vital component of security. This was the objective France sought when it proposed to the United Nations in 1978 an international satellite monitoring agency (ISMA), and in 1988 a satellite image processing agency (SIPA). Noting that the regional approach to disarmament and security is increasingly widely recognized as essential by the international community, France considers that the implementation of regional agreements on confidence and security could draw to an increasing extent on the use of satellite images. This approach links up with the philosophy of the "PAXSAT-B" concept put forward by Canada in 1987 (CD/PV.410).

Taking the example of Europe, which already has experience in the application of a regional system of confidence- and security-building measures, and which has recently strengthened the institutional machinery underpinning that system (cf. documents CD/1043: Charter of Paris for a New Europe, and CD/1070: Vienna Document on confidence- and security-building measures in Europe), it is France's wish that the existing CSCE Conflict Prevention Centre should shift towards a transparency function, in particular through the use of the data generated by an "Open Skies" agreement and by satellite images. It suggests that the other regions should make provision for the use of such machinery under regional agreements on confidence and security.

France itself, which is convinced that improved information can enhance security, is prepared to **contribute** to the establishment and operation of such regional agencies in three forms:

assistance in **training specialists** in the interpretation of satellite data;

study of the possible structure and size of the **reception facilities** (engineering) which might be made available to States participating in such agencies;

initiation of more far-reaching consideration of the question of access to data and satellite information and **discussions with other countries** producing space images, with a view to possible agreements to supply regional agencies at their request with the information they need to perform their tasks.

Discussions in the Conference on Disarmament in recent years have shown that the great and urgent need for thorough consideration of the establishment of a regime of confidence-building measures in space are increasingly recognized by the international community. Among the topics tackled by the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, it would seem that this is the topic offering the best prospects for the future. France hopes that its contribution, together with that of other member States, will contribute to progress towards a consensus in this field.

CONFERENCE ON DISARMAMENT

CD/1093
CD/CW/WP.354
6 August 1991

Original: ENGLISH /
RUSSIAN

REPUBLIC OF POLAND
AND
UNION OF SOVIET SOCIALIST REPUBLICS

Joint Report on a Trial Inspection on Request

INTRODUCTION

1. At the initiative of the Polish side, and pursuant to a bilateral agreement between the Republic of Poland and the Union of Soviet Socialist Republics, Poland has conducted a trial inspection on request at two Soviet military facilities located on the territory of Poland.
2. The Republic of Poland, which has declared, inter alia, that it does not possess chemical weapons (document CD/985), was the Requesting Party in the exercise.
3. The Union of Soviet Socialist Republics, which has declared, inter alia, that it does not possess chemical weapons on the territories of other States (document CD/CW/WP.264), was the Inspected Party in the exercise.
4. This report presents the outcome of an exercise applicable to an inspection on request on the grounds of suspected storage of chemical weapons.

Aims of the Trial Inspection

5. The aim of the trial inspection on request were:

- a) to confirm, insofar as Poland's territory is concerned, the USSR declaration on non-possession of chemical weapons outside its territory;
- b) to test in practice the relevant procedures of the Protocol on Inspection Procedures contained in the draft Convention on the prohibition of chemical weapons to be used in case of suspected storage of chemical weapons;
- c) to determine the necessary scope of activities which should be carried out by the Inspection Team during the inspection on request at military facilities;
- d) to train inspectors in carrying out such inspections.

Facilities inspected

6. The facilities inspected were selected by the Polish side.
7. The first inspected facility was a central artillery depot of the Soviet Troops located on the territory of Poland where different types of munitions have been stored.

The facility has an administrative area with offices and living quarters and a storage area with bunkers and stores for munitions and open storage areas.

There are road/rail transport entry/exit points at the facility.

8. The second inspected facility was a central chemical depot of the Soviet Troops located on the territory of Poland where means of protection against weapons of mass destruction including those against chemical weapons, are store. At the depot there is an administrative area with offices and living quarters and a storage area where stores, open storage areas and a chemical laboratory are located.

There are road transport entry/exit points at the facility.

9. The inspection was carried out pursuant to the Protocol on the Activities of Inspectors during Inspection agreed between Poland and the USSR based on the draft Convention on Chemical Weapons (CD/1033 of 10 August 1990). The Protocol did not contain provisions relating to definitions, designation of inspectors and inspection assistants, privileges and immunities, standing arrangements and pre-inspection activities. It was agreed between the Parties that the samples would be analysed on-site. Since there has not been a certified list of approved equipment, both Parties agreed that a list of all inspection equipment would be made available to the Inspected Party for approval at least a week before the inspection.

The observers of the Requesting Party were accorded the same rights, access and information as the inspectors. It was agreed, however, that any request on their part would be made through the Inspection Team Leader.

Composition of the team

10. The Inspection Team consisted of six representatives of the Polish Army, including two munition experts, two chemical weapon detection specialists (with analytical equipment) and two chemical weapon defence experts.

11. The Requesting Party appointed two observers:

- a representative of the Ministry of Foreign Affairs;
- a military expert of the Polish Delegation to the Conference on Disarmament.

12. The Inspected Party appointed an escort composed of:

- two representatives from the Ministry of Defence of the USSR familiar with the inspection procedures worked out at the Conference on Disarmament;
- representatives of the inspected facilities, including their commanders, who accompanied the inspectors during the inspection of their respective facilities and assisted the inspectors in the performance of their duties.

Notification and time of inspection

13. The request for the inspection of the first facility was submitted to the Headquarters of the Soviet Troops located on the territory of Poland on 16 April 1991 at 4. p.m. (16 hours prior to the arrival of the Inspection Team at the point of entry). The notification contained the name of the first facility to be inspected, the date and estimated time of arrival of the Inspection Team, the names of inspectors and observers. The notification also indicated that another inspection was planned at a later date.

14. The second notification was submitted to the Headquarters of the Soviet Troops located on the territory of Poland on 17 April 1991 at 5. p.m. (15 hours prior to the arrival of the Inspection Team at the second facility). The notification contained the name of the second facility, the date and estimated time of arrival of the Inspection team. It also confirmed the names of inspectors and observers.

15. The inspection at the munition depot was carried out on 17 April 1991 from 10 a.m. to 8 p.m. The inspection at the chemical depot was conducted on 18 April 1991 from 8 a.m. to 4 p.m.

Conduct of the inspection

16. Upon arrival of the Inspection Team at the Headquarters (which played the role of the point of entry) the Commander of the Soviet Troops located on the territory of Poland welcomed members of the Inspection Team, observers and the representatives of the Ministry of Defence of the USSR, who were members of the escort.

The Inspection Team Leader informed the Inspected Party of the purposes and tasks of the Inspection Team. During the one-and-a-half hour meeting, representatives of the escort inspected the testing equipment at the disposal of inspectors in order to confirm that the equipment in question met the requirements for this particular type of inspection.

17. For taking and analysing of samples to determine whether or not chemicals listed in Schedule 1 of the draft Convention were present, the Inspection Team had at its disposal photo-ionisation analyzers of organic compound vapours, including organophosphorous (gas detector AIM-2000 and 580A), a portable chemical laboratory PCHL-3 and a mobile chemical laboratory AL-4. The Inspection Team also used the equipment for non-destructive examination of munitions (and ultrasonic thickness meter type 545H and a portable ultra-sonic device type 543).

The ultrasonic thickness meter (type 545H) was used to measure thickness of munition casing.

The portable ultrasonic device (type 543) served to determine the content of the munition under examination (a solid, loose, or liquid substance). The method of measurement was based on establishing the velocity of propagation of ultrasonic waves in the munition.

18. For the purpose of recording any possible ambiguous situations during the inspection, the Inspection team had an instant camera (Polaroid 635) to provide two instant photographs, one for each Party. The Inspectors also used dictaphones, portable transmitters and binoculars.

19. Upon arrival of the Inspection Team and the observers at the main entrance of the first facility they were welcomed by the facility commander and accompanied to a briefing room which subsequently served for inspectors as a working room.

The facility commander, using a layout site plan of the depot, described the location and functions of its structures, delimitation line between the administrative and storage areas, informed about their size; number of stores and open storage areas; types of munitions stores there; road/rail transport entrance/exit point and informed on safety measures during the inspection. The inspectors and observers agreed not to divulge information not connected with the inspection objectives.

The facility commander pledged full cooperation of the facility management with the Inspection Team at all stages of the inspection.

The management of the facility proposed a route of passage of inspectors from one storage to another which, in its opinion, would enable the inspection team to obtain the necessary information to achieve the aims of the inspection. The possibility of performing an introductory tour of the facility along the proposed route was also envisaged. The commander's introduction was followed by a discussion during which inspectors asked a number of questions concerning the inspected facility and received satisfactory answers.

20. After an initial examination of the documentation relevant to the depot's activities, the Inspection Team Leader decided that the Inspection Team would not conduct the introductory tour of the facility in view of its long duration and the necessity of devoting more time to the main inspection activities in the storage area. The Inspection Team Leader proposed a detailed inspection plan which specified on the lay-out site plan handed out to inspectors, the route and structures to be inspected.

The proposed inspection plan provided for the inspection of nine munition bunkers and stores and two points for loading /unloading munitions. The Inspection Team Leader reserved his right to make changes in the course of the inspection in the inspection plan proposed by him.

21. During the inspection, inspectors had unimpeded access to all bunkers, and stores and loading/unloading points selected by them.

The inspectors compared markings on the boxes with those on the munitions inside. As a result of the examination of the munitions no indications were discovered that they contained chemical warfare agents (lack of filling holes, plugs, specific markings or codes). A highly sensitive photo-ionisation analyzer of organic compound vapours was used during the inspection and gave negative results. Inspectors decided to carry out a random examination of two artillery shells using non-destructive methods. The measurement performed

with the portable ultrasonic device determined a solid material in both shells. In the light of the above, there was no need to take samples from munitions for examination.

22. During the inspection, inspectors paid particular attention to other factors which might have indicated the presence of chemical weapons. These factors are, for example, as follows:

- specific features of bunkers and stores (possibility of their hermetization, presence of air filter-ventilation systems);
- presence of protective and decontamination equipment or individual protective clothing in excess of ordinary requirements;
- presence of first-aid medicines for treatment of poisoning with toxic chemicals;
- presence of toxic chemicals detection and warning systems inside stores;
- specific provisions in safety instructions;
- presence of equipment and installations for utilisation (burning) of chemicals.

Findings in this regard were negative.

23. While inspecting bunkers and stores, the Inspection Team examined the pertinent documentation on stored munitions.

24. Upon completion of the inspection activities at the first facility, the Inspection Team Leader prepared in duplicate a preliminary report (Annex A). Its principal conclusion was that no chemical weapon or its traces were found.

25. On the second day, the Inspection Team arrived at the chemical depot, the second inspected facility.

The initial procedures including briefing and questioning by inspectors were identical to those undertaken during the first day of inspection. Since in the case of a chemical depot, the presence of chemical defence equipment could not be regarded as an indication of the presence of chemical weapons, the question of other indicators of a possible chemical weapon presence was thoroughly considered. As a result, the inspectors reached the conclusion that in such a case, inspection of all storage sites, including examination of documentation on stored chemicals and equipment was necessary.

Accordingly, the Inspection Team had unimpeded access to:

- all storage sites of the facility;
- loading/unloading sites;

- a chemical laboratory;
- all other areas of the facility, including metal waste storage areas;
- requested documentation.

The photo-ionisation analyzer (type 580A) was used and gave negative results.

Upon completion of the inspection activities, the Inspection Team Leader prepared in duplicate a preliminary report (Annex B). Its principal conclusion was that no chemical weapon or its traces were found.

26. After the Inspection, the Inspection Team, the observers and the representatives of the escort returned to the Headquarters of the Soviet Troops located on the territory of Poland. During a short final meeting, both parties summed up the results of the inspection. Both Parties concluded that the exercise had been carried out in a very cooperative spirit and that all its aims had been achieved. They agreed to issue a joint press communiqué to the effect that no chemical weapons or their signs were found.

CONCLUSIONS

1. The trial inspection reaffirmed the value of the concept of inspection on request as an indispensable element for the verification of the compliance with the Chemical Weapons Convention. It also indicated that it was possible to protect confidential information and information not relevant to chemical weapons without compromising the main objectives of the inspection.
2. A request for inspection should, to the extent possible, clearly identify the nature of suspicion. It would considerably facilitate the task of the Technical Secretariat to select inspectors with appropriate qualifications and suitable equipment to fulfil the aims of the inspection.
3. The trial inspection showed that cooperation between the Inspected State with the Inspection Team was conducive to a speedy and effective conclusion of the inspection.
4. The experience gained during the inspection shows that the Inspection Team should have a right of access to any place within the inspection site. It does not exclude a possibility of preparing a flexible enough inspection plan which could enable the completion of the inspection at the stage when sufficient evidence is obtained that doubts or suspicion in the request were unwarranted.

Annex A

PRELIMINARY REPORT OF THE INSPECTION TEAM

1. Participating Parties:

- | | |
|-------------------------|---|
| a) the Requesting Party | The Republic of Poland |
| b) the Inspected Party | The Union of Soviet Socialist Republics |

2. Site of the inspection:

The central artillery depot of the Soviet Troops located on the territory of the Republic of Poland

3. Timing :

- | | |
|-------------------------------------|-----------------------------|
| a) arrival of the Inspection Team | 17 April 1991
10.00 a.m. |
| b) departure of the Inspection Team | 17 April 1991
8.00 p.m. |
| c) duration of the inspection | 10 hours |

4. Results of the inspection:

4.1. The Inspection Team inspected 9 stores and bunkers for storing munitions and 2 sites for loading/unloading artillery munitions which constitute approximately 15 per cent of the total number of structures at the depot.

4.2 No traces of activities indicating the presence of chemical weapons were discovered.

4.3 No traces were discovered of the presence of any chemical artillery munitions, including unfilled munitions, any special devices for filling and using chemical weapons or chemicals included in Schedules 1, 2 and 3 of the draft convention on the prohibition of chemical weapons (CD/1033).

4.4. No factors were discovered which would indicate the presence of chemical weapons (namely, presence of air treatment systems in stores, stocks of protective and decontamination means in stores or in the immediate vicinity of them, specially guarded areas on the territory of the facility, systems detecting chemical warfare agents in the air and appropriate warning systems, instructions for actions or personnel in emergency situations in connection with chemical weapons, absence in the general system of documentation of data

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on operational activities related to any store or other sections of the facility, presence of stores from which their content was removed prior to the arrival of the Inspection Team).

CONCLUSION

No chemical weapons or their traces were discovered.

Signature:

Leader of the Inspection Team

Annex B

PRELIMINARY REPORT OF THE INSPECTION TEAM

1. Participating Parties

- | | |
|-------------------------|--|
| a) the Requesting Party | The Republic of Poland |
| b) the Inspected Party | The Union of Soviet
Socialist Republics |

2. Site of the inspection :

The central chemical
depot of the Soviet
Troops located on the
territory of the
Republic of Poland

3. Timing:

- | | |
|-------------------------------------|----------------------------|
| a) arrival of the Inspection Team | 18 April 1991
8.00 a.m. |
| b) departure of the Inspection Team | 18 April 1991
4.00 p.m. |
| c) duration of the inspection | 8 hours |

4. Results of the inspection:

4.1. The Inspection Team inspected all stores of the depot, a chemical laboratory, tanks containing a decontamination substance and all other areas of the depot.

4.2. No traces of activities indicating the presence of chemical weapons were discovered.

4.3. No traces were discovered of the presence of chemical munitions or chemicals included in Schedules 1, 2 and 3 of the draft convention on the prohibition of chemical weapons (CD/1033) or any special devices for filling and using chemical weapons.

4.4. No factors were discovered which would indicate the presence of chemical weapons (namely, presence of air treatment systems in stores, specially guarded areas on the territory of the facility, systems detecting chemical warfare agents in the air and appropriate warning systems, instructions for actions of personnel in emergency situations in connection with chemical weapons, absence in the general system of documentation of data

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on operational activities related to any store or other sections of the facility, presence of stores from which their content was removed immediately prior to the arrival of the Inspection Team).

CONCLUSION

No chemical weapons or their traces were discovered.

Signature:

Leader of the Inspection Team

CONFERENCE ON DISARMAMENT

CD/1094
7 August 1991

Original: ENGLISH

LETTER DATED 2 AUGUST 1991 FROM THE PERMANENT REPRESENTATIVE
OF CANADA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE
ON DISARMAMENT TRANSMITTING THE ARMS CONTROL VERIFICATION
OCCASIONAL PAPER NO. 8, ENTITLED "NUCLEAR TEST BAN VERIFICATION:
RECENT CANADIAN RESEARCH IN FORENSIC SEISMOLOGY" 1/

I have received copies of the 8th in Canada's series of Arms Control
Verification Occasional Papers, entitled "Nuclear Test Ban Verification:
Recent Canadian Research in Forensic Seismology" and I would like to share
them with you and with my CD colleagues. I would be grateful if you would
arrange to circulate them, under a CD number, to all member and
non-participating state delegations.

(Signed) Gerald E. Shannon
Ambassador and
Permanent Representative

1/ A limited distribution of this brochure in English only has been made
available to the members and non-members invited to participate in the work of
the Conference on Disarmament. Additional copies are available from the
Permanent Mission of Canada.

GE.91-62171/6915a

CONFERENCE ON DISARMAMENT

CD/1095
7 August 1991

Original: ENGLISH and
FRENCH

LETTER DATED 5 AUGUST 1991 FROM THE PERMANENT REPRESENTATIVE OF
CANADA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE
ON DISARMAMENT TRANSMITTING THE ARMS CONTROL VERIFICATION
OCCASIONAL PAPER NO. 6, ENTITLED "OVERHEAD IMAGING FOR
VERIFICATION AND PEACEKEEPING: THREE STUDIES" 1/

I have received copies of the 6th in Canada's series of Arms Control
Verification Occasional Papers, entitled "Overhead Imaging for Verification
and Peacekeeping: Three Studies" and I would like to share them with you and
with my CD colleagues. I would be grateful if you would arrange to circulate
them, under a CD number, to all member and non-participating State delegations.

(Signed) Gerald E. Shannon
Ambassador and
Permanent Representative

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from the Permanent Mission of Canada.

GE.91-62177/6916a

CONFERENCE ON DISARMAMENT

CD/1096
9 August 1991

Original: ENGLISH

LETTER DATED 7 AUGUST 1991 FROM THE CHARGE D'AFFAIRES A.I. OF
THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA ADDRESSED TO THE
SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING
A PROPOSAL OF THE GOVERNMENT OF THE DEMOCRATIC PEOPLE'S REPUBLIC
OF KOREA ON THE NUCLEAR-FREE ZONE ON THE KOREAN PENINSULA

I have the honour to transmit herewith a nuclear free-zone proposal made
on 30 July 1991 by the Government of the Democratic People's Republic of Korea.

I would be grateful if you could circulate it as an official document of
the Conference on Disarmament.

(Signed) Han Chang On
Chargé d'affaires, a.i.

PROPOSAL OF THE GOVERNMENT OF THE DEMOCRATIC
PEOPLE'S REPUBLIC OF KOREA ON THE NUCLEAR-
FREE ZONE ON THE KOREAN PENINSULA

The changing situation today raises the establishment of a nuclear-free zone on the Korean peninsula as the mature demand that brooks no further delay.

The major nuclear weapon states, which consider the Korean peninsula their operational theatre for a nuclear showdown, are moving from confrontation to cooperation and reaching agreements on the reduction of nuclear weapons. This fact affords a new objective possibility for turning the Korean peninsula into a zone free from nuclear weapons.

These days the United States takes the posture of not objecting in principle to the establishment of a nuclear-free zone on condition that the parties concerned reach an agreement thereof, and expresses support to the proposal for establishing nuclear-free zones in the Middle East, South Asia and Africa.

We consider that, if the United States and the south Korean authorities take a disinterested approach to our peace initiatives, join us in our sincere efforts to make the Korean peninsula a nuclear-free zone, and follow the current of the times, the source of the danger of a nuclear war can be rooted out without difficulty on the Korean peninsula.

It is with such expectation and conviction that the Government of the Democratic People's Republic of Korea puts forward the following new proposal for the denuclearization of the Korean peninsula.

1. The north and south of Korea shall agree on the establishment of a nuclear-free zone on the Korean peninsula and make a joint declaration thereof.

We consider that the north and south should negotiate all the legal and practical matters related to turning the Korean peninsula into a nuclear-free zone and adopt a joint declaration with legal effect not later than the end of 1992.

We consider that the joint declaration should provide for the ban on the test, manufacturing and possession of the nuclear weapons by the north and south, the prohibition of the deployment and passage of nuclear weapons and of the nuclear military exercises in the sphere of the nuclear-free zone of the Korean peninsula and the verification of the absence of nuclear weapons through inspections of the north and south.

2. The United States, and Soviet Union and China, the nuclear weapons states neighbouring on the Korean peninsula, shall legally guarantee the nuclear-free status of the Korean peninsula, once an agreement is reached and declaration is adopted to this effect.

The nuclear weapon states must stimulate the process of establishing a nuclear-free zone by expressing their willingness not to hinder the Korean peninsula from becoming a nuclear-free zone but guarantee such status.

Within one year after the north and south of Korea jointly declare the establishment of a nuclear-free zone, the nuclear weapon states should remove all factors contravening the nuclear-free status of the Korean peninsula and give assurances that they will not use or threaten to use nuclear weapons, as required by international law.

Particularly, the United States, the party which has deployed its nuclear weapons in south Korea, must take measures to withdraw these weapons in conformity with the requirement of the denuclearization of the Korean peninsula.

3. The non-nuclear weapon states in Asia shall support the conversion of the Korean peninsula into a nuclear-free zone and respect its nuclear-free status.

The Government of the Democratic People's Republic of Korea is ready to hold bilateral or multilateral negotiations any time to discuss the matter of establishing a nuclear-free zone on the Korean peninsula.

This proposal is of weighty importance in eliminating the nuclear threat against us and strengthening the system of nuclear non-proliferation in the Korean peninsula and, furthermore, will make a substantial contribution to consolidating peace and security in Asia and the world.

If the Korean peninsula is turned into a nuclear-free zone, it will create a favourable phase for creating a nuclear-free zone in Northeast Asia and lay down a basis for expanding the nuclear-free zone to the rest of the Northeast Asia region.

Proceeding from its anti-nuclear, peaceloving policy, the Government of the Democratic People's Republic of Korea solemnly declares at home and abroad its readiness to take all the necessary measures to turn the Korean peninsula into a nuclear-free zone.

Ministry of Foreign Affairs of the Democratic
people's Republic of Korea.

Pyongyang, July 30, 1991.



CONFERENCE ON DISARMAMENT

CD/1097
9 August 1991

Original: ENGLISH

PROGRESS REPORT TO THE CONFERENCE ON DISARMAMENT ON THE THIRTY-SECOND SESSION OF THE AD HOC GROUP OF SCIENTIFIC EXPERTS TO CONSIDER INTERNATIONAL COOPERATIVE MEASURES TO DETECT AND IDENTIFY SEISMIC EVENTS

1. The Ad Hoc Group of Scientific Experts to Consider International Cooperative Measures to Detect and Identify Seismic Events, initially established in pursuance of the decision taken by the Conference of the Committee on Disarmament on 22 July 1976, held its thirty-second formal session from 29 July to 9 August 1991, in the Palais des Nations, Geneva, under the Chairmanship of Dr. Ola Dahlman of Sweden. This was the twenty-fourth session of the Group convened under its new mandate by the decision of the Committee on Disarmament at its 48th meeting on 7 August 1979.
2. The Ad Hoc Group continues to be open to all member States of the Conference on Disarmament, as well as upon request to non-member States. Accordingly, scientific experts and representatives of the following member States of the Conference on Disarmament participated in the session: Australia, Belgium, Canada, China, Czech and Slovak Federal Republic, Egypt, Germany, Hungary, Indonesia, Iran (Islamic Republic of), Italy, Japan, Netherlands, Pakistan, Peru, Poland, Romania, Sweden, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland and the United States of America.
3. At their request and on the basis of previous invitations by the Conference on Disarmament, scientific experts and representatives from the following non-member States of the Conference on Disarmament participated in the session: Austria, Denmark, Finland, New Zealand, Norway, Spain and Switzerland.
4. Two representatives of the World Meteorological Organization (WMO) also attended the session. The Ad Hoc Group expressed its appreciation of the efforts of the WMO in connection with the GSETT-2 experiment. The Group is prepared to continue its cooperation with the WMO in order to take advantage of the possibilities offered by its Global Telecommunication System.

5. Upon the invitation of the Conference on Disarmament, a representative of the International Maritime Satellite Organization (INMARSAT) attended the session of the group to discuss possibilities for the use of INMARSAT in the development of the communications aspect of a future global seismic data exchange system. The Ad Hoc Group highly appreciated the presentation and technical demonstration given by the representative of INMARSAT on its high speed data communication possibilities. INMARSAT mobile earth stations could provide data communication from regions of the globe that currently are not adequately served by existing communication systems. The INMARSAT representative noted that the INMARSAT system is open for immediate use by the Group, subject to the regulations in the countries in which the earth stations are to be placed. No formal decision needs to be taken by INMARSAT in this regard. The Group also received a report on the successful initial use of the INMARSAT system for the exchange of Level I and Level II seismic data during GSETT-2.

6. Under the current mandate of the Ad Hoc Group, information on national investigations related to the work of the Group has been presented by experts from Australia, Austria, Belgium, Bulgaria, Canada, China, Czech and Slovak Federal Republic, Denmark, Egypt, Finland, Germany, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Kenya, Netherlands, New Zealand, Norway, Pakistan, Peru, Poland, Romania, Spain, Sweden, Switzerland, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United States of America and Zambia.

7. In 1987, the Ad Hoc Group agreed to conduct a large-scale international experiment on the exchange and analysis of seismic waveform (Level II) and parameter (Level I) data. The experiment was named GSETT-2 (the Group of Scientific Experts' Second Technical Test). The principal purpose of GSETT-2 was to test methods and procedures developed by the Ad hoc Group to expeditiously extract and transmit the data from stations to Experimental International Data Centers (EIDCs), to process them at EIDCs and to transmit the results back to participants.

8. The Ad Hoc Group reviewed the results of the full-scale phase of GSETT-2, which was successfully conducted during the period 22 April to 9 June 1991. The Group noted that 34 countries participated in this test, providing seismic data for 42 consecutive data days from 60 stations distributed around the globe. During this time, the participating countries operated National Data Centers (NDCs), some with assistance from other countries. Four Experimental International Data Centers (EIDCs) were operated, and a variety of international communication links were utilized.

9. The Ad Hoc Group noted with satisfaction that the participation in the full-scale test was broadened compared to earlier preparatory tests. In particular the Group welcomed the participation of several additional countries in South America and Africa, which implied an improvement in obtaining seismological observations in these regions. The Group noted that significant technical cooperation took place among many countries, and expressed its appreciation for the efforts in supporting the participation of new countries.

10. In reviewing the results of GSETT-2, the Ad Hoc Group noted that many of the components of the experimental global system had functioned well, taking into account the size and complexity of this undertaking. The procedures and instructions were generally followed. Valuable experience was gained at both national and international centres. This test was a large and in many ways unprecedented undertaking because of the complexity of the system, especially the communications links used, and the expeditious nature of daily seismic event bulletin preparation and exchange.

11. The large-scale experiment could not have been successfully conducted without preparation of detailed instructions, acquisition of necessary equipment and adequate preparatory testing. The Ad Hoc Group expressed its appreciation of the efforts of the Coordinator of GSETT-2, Mr. Peter Basham of Canada. The Group also expressed its appreciation to the Coordinator of the "Sourcebook for Seismic Data Exchange", Ms. Ann Kerr of the United States, for her efforts in preparing this comprehensive reference manual.

12. The Group noted that as a result of GSETT-2, a unique seismological database has been established. These data will be of great value for future scientific investigations in many areas.

13. The Group noted that a comprehensive evaluation of the results from GSETT-2 will be a substantial undertaking. The Group noted that an important aspect of the evaluation would be to refine the concepts of a global system as described in the Group's Fifth Report (CD/903 and Corr.1). At its thirty-first session, the Ad Hoc Group established five study groups, each headed by a Convenor, to deal with different aspects of this work. The Group reviewed initial draft outlines of chapters of its envisaged report, elaborated by the Convenors.

14. A summary report on the preliminary results of the test, compiled by the Convenors of the five study groups, is annexed to this progress report.

15. The Group agreed that the Convenors should elaborate complete draft chapters and submit them to the Scientific Secretary in advance of the next session. These will form a basis for a draft report which will be distributed in advance of and reviewed during the next session.

16. The Group will make all effort to complete a report on a comprehensive evaluation of the technical and factual aspects of the test during the spring session of 1992. While it may be possible to summarize the technical conclusions from GSETT-2 during the next session of the Group, the full seismological evaluation will need considerably more time, and will be reported on later. In this regard, the Group believes it will be important to carry out additional checking of the procedures which will be used in the evaluation of GSETT-2. It will be desirable to have facilities available that would provide for taking part in tests that may be required for the successful evaluation of GSETT-2. The Group will again consider this issue at the next session.

17. The Ad Hoc Group continued its preliminary discussion on the work of the Group remaining under its current mandate as regards international cooperative measures to detect and identify seismic events. The Group expressed the view that much valuable work could be conducted in this context. The Group expects to be able to develop specific recommendations in this regard during its next session, taking into account the results of GSETT-2.

18. The Ad Hoc Group appreciated the opportunity to attend informal technical presentations made by Canada on new methodologies in seismic verification, and by Germany on the concept of an open CD-seismic station.

19. The Ad Hoc Group suggests that its next session, subject to approval by the Conference on Disarmament, should be convened from 2 to 13 March 1992.

ANNEX

Summary report on the preliminary results of the Group of
Scientific Experts' Second Technical Test (GSETT-2)*

1. Introduction

In 1987, the Ad Hoc Group of Scientific Experts (the GSE) agreed to conduct a large-scale international experiment on the exchange and analysis of seismic data. The experiment was named GSETT-2 (the Group of Scientific Experts' Second Technical Test). In the document CD/745 the Group stated that:

"The principal purpose of this experiment should be the testing of methods and procedures developed by the Ad Hoc Group to expeditiously extract and transmit the data from stations to Experimental International Data Centers (EIDCs), to process them at EIDCs and to transmit the results back to participants."

The Group's Fifth Report (CD/903 and Corr. 1) describes the initial design concepts of a modern international seismic monitoring system. These technical concepts which were to be tested during GSETT-2, are based on expeditious exchange of waveform (Level II) and parameter (Level I) data and processing of such data at International Data Centers (IDCs). The proposed system consists of four major elements:

- (i) A global network of high-quality seismograph stations, including seismic arrays, each conforming to specified technical standards and operated according to internationally agreed rules.
- (ii) Government-authorized National Data Centers (NDCs) responsible for providing agreed seismic data from national stations to IDCs.
- (iii) International Data Centers to collect and analyse seismic waveform and parameter data, to distribute the results of these analyses and to make the data readily accessible to all participants.
- (iv) Telecommunications channels for the expeditious exchange of data between NDCs and IDCs, as well as among IDCs.

In its progress reports to the Conference on Disarmament, the Ad Hoc Group has described the various stages in the planning and development of GSETT-2. In addition, two internal documents (Conference Room Papers 167 and 190) contain comprehensive descriptions of the experimental facilities being developed and the procedural arrangements. Mr. Peter Basham of Canada has served as the Coordinator of GSETT-2.

* Compiled by the Convenors of the five study groups.

GSETT-2 is comprised of four distinct phases:

- Phase 1: Establishing the facilities and procedures that would form parts of the experimental system to be tested;
- Phase 2: Limited short-time tests of the experimental system, in preparation for full-scale testing;
- Phase 3: (The main phase of GSETT-2): Full-scale testing, for 42 consecutive data days, of the entire experimental system;
- Phase 4: Evaluation of the results of GSETT-2.

The experiences during Phase I and Phase II of GSETT-2 and the preparatory test (November-December 1991) of Phase 3 were essential for the successful conduct of the full-scale test (Phase 3).

This initial evaluation report summarizes the results of the main phase (Phase 3), which was conducted during the time period 22 April-9 June 1991.

2. Seismograph Stations and Station Network

There are two types of seismograph stations available which may be combined in an appropriate way to form a global network. One is the single-site three-component seismograph system capable of extracting data in both the short period and long period bands, and the other is a seismic array station where many seismographs are arranged in a certain geometrical pattern and jointly operated.

In Phase 3 of the GSETT-2 experiment 34 countries took part with altogether 60 stations (12 arrays and 48 single-site stations). Most of the stations were high quality digital recording systems providing both Level I and Level II data. Stations with analog recording systems were also used in a few cases. While these stations provided only Level I data, they served to improve the geographical coverage. Various designs of "CD-standard stations" were tested during the experiment.

The station network in use during the full-scale test comprised stations on all continents. Still, the actual geographical distribution of stations was far from ideal, with a very dense coverage in parts of Europe and sparse coverage especially in Africa and South America.

The initial evaluation of GSETT-2 has confirmed the importance of deploying seismograph stations at sites with low background noise levels. Stations situated on islands and in coastal areas generally contributed far less than sensitive stations in the interior of continents, but they were important in some cases.

GSETT-2 has confirmed the importance of array stations in detecting weak seismic events at all distances, and in providing initial event location information. Modern three-component stations were also found to be valuable.

It can be concluded that modern technology and recent scientific developments permit high flexibility in station deployment and lower operation and maintenance costs. All of these features, as well as the increased efficiency and reliability of station hardware and software, were demonstrated in the course of GSETT-2.

3. National Data Centers (NDCs)

During the full-scale test 34 countries successfully operated national data centres (NDCs), some with assistance from other countries. Thus there were several countries which under bilateral arrangements either operated an NDC for another country or performed one or more of the NDC functions (e.g. Level I data extraction, GSE message formatting, etc.) for another country. This test was a large undertaking. More than 100 people were involved at NDCs during Phase 3. NDCs reported over 100,000 parameters with their associated waveforms to EIDCs. These data were contained in over 20,000 messages and amounted to about 500 Mbytes. In a new and unique contribution, NDCs reported about 5,000 locations of seismic events based on only national data.

In order to accomplish this tremendous task, many NDCs operated automatic seismic event detectors and utilized state-of-the-art computer hardware and software to perform interactively many of the NDC functions, such as parameter and waveform data extraction. In addition, some countries were able to utilize semi-automatic procedures for handling GSE messages including responding to requests for additional data. It should be noted that a number of countries were able to participate in the full-scale test with only limited data reporting. Reasons for this included limited funds, relatively poor station availability, etc.

Nevertheless, a valuable database has been assembled which will be available for the comprehensive evaluation (Phase 4) of GSETT-2.

Although preliminary indications are that procedures and instructions for operating NDCs generally worked well, it is clear that some modifications are needed. It will be necessary to work further towards developing common procedures for automatic and interactive analysis at NDCs.

Most NDCs successfully received all Final Event Bulletins (FEBs) from the EIDCs; however, these were generally one or two days later than the planned seven-day schedule, with a few cases of fifteen days or more late. Some NDCs did not receive all FEBs. Many NDCs made preliminary analyses of the FEBs which suggested that some procedures, such as automatic association and location need to be improved.

The GSETT-2 provided the first opportunity to test the procedures for requests to NDCs for additional data. While some NDCs were able to respond completely and quickly, problems in this area remain.

4. Experimental International Data Centers (EIDCs)

Four Experimental International Data Centers (EIDCs) were operated during Phase 3 of GSETT-2: Canberra (CNB), Moscow (MOS), Stockholm (STO) and Washington (WAS). High-speed communication links were implemented between the four EIDCs.

A total of about 65,000 phase detections were reported from 57 stations in 34 countries. Twenty-seven (27) countries submitted a total of more than 80,000 waveform segments (Level II data) recorded at 47 stations. Less than 2 per cent of a total of 36,000 messages contained format errors, and roughly 20 per cent of the 65,000 phase detections arrived late (i.e. after the deadline according to the rules). More than 3,000 duplicate messages (several hundred megabytes) were received by the EIDCs.

The daily volumes during Phase 3 had increased by a factor of two compared to earlier experiments of GSETT-2. This was partly due to more local and regional phases reported by many NDCs compared to earlier. These additional phases also partly explain why more than 50 per cent of the reported phases could not be associated to an event. The EIDCs have received and transmitted requests from and to both NDCs and other EIDCs. Some EIDCs satisfied most of the incoming requests and transmitted their response in time while others encountered problems due to software difficulties, lack of fully automatic request handling programmes and insufficient manpower.

The importance of an EIDC's ability to request supplemental data is demonstrated by the fact that, for instance, several hundred new phases with observable signals were picked by the EIDCs from examination of waveform segments received in response to requests.

The use of waveforms improved the quality of the event lists considerably, in particular the depth estimation was improved. However, further investigation is necessary to make an accurate assessment. The reconciliation of the seismic analysis between the EIDCs was done through a regular (i.e. daily) exchange of IELs and CELs. Approximately 40 per cent of the events in the FEBs were reported by all four EIDCs and 60 per cent by at least three EIDCs. The fact that the results of the EIDCs were not essentially identical will be subject to further evaluation studies.

The locations and comments supplied in addition to the phase reports by the NDCs were not used to the extent expected.

As a preliminary conclusion, it may be stated that the overall performance of many of the EIDC procedures were satisfactory. Adequate improvements of the applied rules and procedures will be recommended after completion of the already started detailed evaluation of the EIDC performances during GSETT-2.

5. Communications

The overall impression from Phase 3 of GSETT-2 is that the communications network, comprising NDC to EIDC as well as inter-EIDC links, worked very well. The network in place for Phase 3 was composed of a large variety of types of physical links, and a range of different protocols were utilized. With a few exceptions, the elements of this network fulfilled the basic objective of enabling expeditious exchange of large amounts of seismic data and other messages.

Problems encountered with the use of NDC to EIDC links were very few. It became apparent, however, that use of WMO/GTS for transmission of large volumes of data (such as waveform data and FEBs) met with a moderate degree of success only. For several countries, however, the WMO/GTS represented the only means for transmission of seismic data and in general proved useful for reporting parameter data.

Many countries made use of the international Packet-Switched Data Network Services, and a number of NDCs established direct computer-to-computer links via dial-up circuits. Experience with such links was very favourable. Some countries established alternative routings that were used successfully during outages of their "main" communications link. The INMARSAT system for exchanging Level I and Level II data was tested for the first time.

The inter-EIDC communications network comprised high speed dedicated satellite, fibre optical and land links between the four EIDCs, the Washington Communications HUB and the Stockholm Communications Node. After the installation of the satellite link between Moscow and Washington on 29 April, the inter-EIDC communications network worked extremely well, taking into account the complexity of the system and the large amount of data handled. There were some problems related to the generation of duplicate messages, but it is expected that only minor modifications are needed to remedy this problem.

6. Seismological Evaluation

An important aspect of the performance of a global seismological monitoring system is the completeness and quality of the final event bulletin (FEB). This seismological output is closely linked to the adequacy of the technical components of the monitoring system, it especially depends on the spatial distribution of seismic stations. For GSETT-2, a very heterogeneous global coverage yielded large regional variations in detection threshold and a large number of unassociated single station detections. About one half of the participating stations were situated in and around Europe, consequently a large number of small events were detected, mainly quarry blasts and rock bursts of magnitude 1 to 4.

On the other hand, epicentres of larger earthquakes reported in the FEBs are not restrained by well-known plate boundaries but show a significant scatter. This observation leads to the conclusion that the FEBs, in general, have to be re-evaluated without the time pressure given during the experiment, before a comprehensive seismological evaluation can begin.

This evaluation will compare the EIDC epicentres, hypocentres, and magnitudes with results of well-established agencies on a global scale (e.g. National Earthquake Information Center in the United States) and for specific regions like Europe (European Mediterranean Seismic Centre).

In addition, the unique data set collected during GSETT-2 should be evaluated in all aspects which are relevant to the identification of seismic sources. This topic - although of crucial importance for States in their national monitoring of compliance with a nuclear test-ban treaty - has not yet been addressed by the GSE. For the first time, there is now, through GSETT-2 data, a common basis to start this investigation. While it may be possible to summarize the technical conclusions from GSETT-2 during the next session of the Group, the full seismological evaluation will need considerably more time, and will be reported on later.

CONFERENCE ON DISARMAMENT

CD/1098
12 August 1991

Original: ENGLISH

LETTER DATED 7 AUGUST 1991 FROM THE PERMANENT REPRESENTATIVE OF EGYPT ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A LETTER DATED 21 JULY 1991 FROM THE MINISTER FOR FOREIGN AFFAIRS OF EGYPT ADDRESSED TO THE SECRETARY-GENERAL OF THE UNITED NATIONS CONCERNING THE RECENT PROPOSALS ON ARMS LIMITATION AND DISARMAMENT IN THE MIDDLE EAST

I am pleased to invite the attention of the Conference on Disarmament to the letter dated 21 July 1991 from the Minister for Foreign Affairs of Egypt addressed to the Secretary-General of the United Nations concerning the recent proposals on arms limitation and disarmament in the Middle East.

This letter has been reproduced on 30 July 1991 as an official document of the General Assembly A/46/329 and the Security Council S/22855.

May I request, Mr. President, the circulation of this document as an official document of the Conference on Disarmament.

(Signed) Dr. Nabil ELARABY
Ambassador
Permanent Representative

Letter dated 21 July 1991 from the Minister for Foreign Affairs
of Egypt addressed to the Secretary-General

The world has in recent years been the scene of momentous and historic developments which have radically changed the climate of international relations. This change has been accompanied by progress whose significance resides in agreement on concrete measures for arms reduction and disarmament. These are all developments which will, we hope, have a positive impact at the international level and direct results at the regional level, particularly in areas of tension and conflict.

In this connection, Egypt has consistently affirmed that the Middle East region requires intensive efforts on the part of all nations of the region to initiate a peace process which will lead to a just solution of its unresolved problems - first and foremost being the question of Palestine - in such a way as to ensure peaceful coexistence between the various parties in an atmosphere of peace, stability and justice. This process may be accompanied by activity in the sphere of arms reduction and disarmament, the objective being to spare the region from superfluous threats. It is our conviction that the arms race in the region - including nuclear weapons and weapons of mass destruction - impedes and threatens peace efforts, besides constituting a serious threat to the region's future.

Accordingly, Egypt has since 1974 - in the context of the United Nations - called for the establishment of a nuclear-weapon-free zone in the Middle East. This call has been the object of a consensus in the General Assembly for over 10 years in succession. In addition, President Hosni Mubarak proposed in April 1990 that the Middle East should be declared a region free of all weapons of mass destruction, because it is Egypt's perception that threats to the region have continued to grow, particularly in the course of recent years, as a result of the accumulation of arms. This proposal was designed to reaffirm Egypt's role in evaluating the situation in the region and in contributing to the suggestion of practical and constructive solutions to counter any danger to which the region may be subjected.

The recent events in the Middle East induced many States to endorse our latest initiative, which was also endorsed by the Security Council in the context of its resolution 687 (1991). These developments also prompted a number of countries to make their own proposals on arms limitation, particularly in the Middle East. Egypt welcomed all initiatives and ideas designed to contribute to the promotion of international and regional stability and security and promised to engage in a constructive dialogue concerning such initiatives.

As a first step, and with a view to demonstrating the extent of Egypt's commitment and determination to take part in these discussions in a constructive manner, President Hosni Mubarak addressed letters to the Heads of State and Government of the five permanent members of the Security Council and the major industrialized countries engaged in consultations on these matters, in order to acquaint them both with Egypt's position on the subjects of arms reduction and with its recent proposals.

In this connection, I should like to note that Egypt regards positively all disarmament proposals which ensure the following:

(a) Increased security for the nations of our region while maintaining lower quantities of armaments, bearing in mind that security can be achieved only through peaceful relations, dialogue and political arrangements, eschewing the logic of force;

(b) A qualitative and quantitative balance between the military capabilities of all States in the region, because a continuation of the current imbalance is unacceptable in a region which is striving for a just and comprehensive peace;

(c) The conclusion of agreements on arms reduction and disarmament which may be applied to all States of the region and be complemented by effective monitoring measures and at the same time secure equal rights and responsibilities for those nations, while allowing the nations of the region to cooperate with the international community in establishing arrangements for arms reduction and disarmament so that the problem may be addressed in an integrated and comprehensive manner in accordance with those nations' real security requirements;

(d) The accordence of priority to ridding the region of weapons of mass destruction - particularly nuclear, chemical and biological weapons - together with consideration of measures for conventional arms reduction when political circumstances permit, following the achievement of peace in the region or, at least, once the peace process has made substantial progress towards the attainment of its goal.

I am pleased to inform you that, on 5 July 1991, Egypt announced a series of additional ideas and proposals designed to contribute to the ongoing dialogue on efforts to reduce armaments in our region and, in particular, to accelerate the establishment of the Middle East as a zone free of weapons of mass destruction.

These proposals are as follows:

(a) Egypt calls on the major arms-producing States - and particularly the permanent members of the Security Council - as well as Israel, Iran and the Arab States to deposit undertakings with the Security Council in which they clearly and unconditionally endorse the declaration of the Middle East as a region free of weapons of mass destruction and commit themselves not to take any steps or measures which would run counter to or impede the attainment of that objective.

(b) Egypt calls on the arms-producing States and the parties to the Treaty on the Non-Proliferation of Nuclear Weapons to step up their efforts to ensure that all Middle East nations which have not yet done so adhere to the Treaty, in recognition of the fact that this is a step of the utmost importance and urgency.

(c) Egypt calls on nations of the Middle East region which have not yet done so to declare their commitment:

- (i) Not to use nuclear, chemical or biological weapons;
- (ii) Not to produce or acquire any nuclear weapons;
- (iii) Not to produce or acquire any nuclear materials susceptible to military use and to dispose of any existing stocks of such materials;
- (iv) To accept the International Atomic Energy Agency safeguards regime whereby all their nuclear facilities become subject to international inspection.

(d) Egypt calls on those nations of the region which have not yet done so to declare their commitment to adhere to the Treaty on the Non-Proliferation of Nuclear Weapons, as well as to the Convention concerning the prohibition of biological weapons of 1972, no later than the conclusion of the negotiations on the prohibition of chemical weapons being conducted by the Conference on Disarmament in Geneva.

(e) Egypt calls on Middle East States to declare their commitment actively and fairly to address measures relating to all forms of delivery systems for weapons of mass destruction.

(f) Egypt calls on nations of the region to approve the assignment to an organ of the United Nations or another international organization of a role, to be agreed upon at a future date, in the verification of those nations' compliance with such agreements on arms reduction and disarmament as may be concluded between them.

In order to give added impetus to the negotiations between all the parties concerned with these matters, Egypt intends to make direct contact with the major parties concerned - both internationally and in the Middle East region - by dispatching envoys and through the use of conventional diplomatic channels, with a view to discussing these various ideas and means for their implementation in both the bilateral and multilateral contexts at the regional and international levels.

(Signed) Amre MOUSSA
Minister for Foreign Affairs
of the Arab Republic of Egypt

REPORT OF THE AD HOC COMMITTEE ON RADIOLOGICAL WEAPONS

I. INTRODUCTION

1. In accordance with the decision taken by the Conference on Disarmament at its 578th plenary meeting held on 24 January 1991, as contained in document CD/1051, the Ad Hoc Committee on Radiological Weapons was re-established, for the duration of the 1991 session, with a view to reaching agreement on a convention prohibiting the development, production, stockpiling and use of radiological weapons. The Conference further decided that the Ad Hoc Committee would report to it on the progress of its work before the conclusion of its 1991 session.

II. ORGANIZATION OF WORK AND DOCUMENTATION

2. At that same plenary meeting, the Conference on Disarmament appointed Mr. Angus W.J. Robertson of Canada as Chairman of the Ad Hoc Committee. Mr. Michael Cassandra of the United Nations Department for Disarmament Affairs served as Secretary of the Ad Hoc Committee.

3. The Ad Hoc Committee held six meetings from 25 February to 12 August 1991. In addition, the Chairman held a number of informal consultations with delegations.

4. At their request, the representatives of the following 25 States not members of the Conference on Disarmament were invited to participate in the work of the Ad Hoc Committee: Angola, Austria, Chile, Costa Rica, Denmark, Finland, Greece, Iraq, Israel, Jordan, Kuwait, Malaysia, New Zealand, Norway, Oman, Portugal, Qatar, Senegal, Spain, Switzerland, Syrian Arab Republic, Turkey, United Arab Emirates, Uruguay and Zimbabwe.

5. In addition to various resolutions adopted by the United Nations General Assembly on the subject at its previous sessions, the Ad Hoc Committee had before it resolutions 45/58F and J adopted by the General Assembly at its forty-fifth session entrusting specific responsibilities to the Conference on Disarmament on this subject.

6. The following working papers were presented to the Ad Hoc Committee:

CD/RW/WP.91 dated 4 March 1991 entitled "Programme of Work for the 1991 session"

CD/RW/WP.92 dated 13 August 1991 entitled "Report of Contact Group A"

CD/RW/WP.93 dated 13 August 1991 entitled "Report of Contact Group B"

III. WORK DURING THE 1991 SESSION

7. At its 1st meeting on 25 February 1991, at the suggestion of the Chairman, the Ad Hoc Committee agreed that it continue the same method of work adopted since 1987, that is, that Contact Group A continue to consider the prohibition of radiological weapons in the "traditional" sense and that Contact Group B continue to consider issues relevant to the prohibition of attacks against nuclear facilities. ^{*}/ He also recommended that the work of the two groups should be pursued as recommended in the 1990 report of the Ad Hoc Committee (CD/1027), that is, to draw upon the two annexes contained in that report as a basis for its work.

8. At the same meeting, the Ad Hoc Committee appointed Mr. Scott O.E. Omene of Nigeria to co-ordinate the work of Contact Group A and Mr. Guéorgui Dimitrov of Bulgaria to co-ordinate the work of Contact Group B.

9. The Ad Hoc Committee held a general exchange of views, after which its work was carried out principally in the framework of the Contact Groups as established above, supplemented by occasional, additional, brief, often informal meetings of the Ad Hoc Committee. On the basis of that work, the two Co-ordinators presented to the Ad Hoc Committee, at its 6th meeting on 12 August 1991, their respective reports (CD/RW/WP.92 and 93), which are reproduced in Annexes I and II to this report, reflecting the current state of consideration of the issues before the Ad Hoc Committee. It is understood that the contents of the Annexes are not binding on any delegation.

IV. CONCLUSIONS AND RECOMMENDATIONS

10. The work conducted by the Ad Hoc Committee during its 1991 session was useful in contributing further to the clarification of different approaches which continue to exist with regard to both the important subjects under consideration. It is recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on Radiological Weapons at the beginning of its 1992 session and that the Ad Hoc Committee draw upon the Annexes to this report as a basis for its future work.

^{*}/ One delegation did not take part in the work on the prohibition of attacks against nuclear facilities.

ANNEX I

Report of Contact Group A

1. In accordance with the decision taken by the Ad Hoc Committee on Radiological Weapons at its first meeting on 25 February 1991, Contact Group A was re-established to continue consideration of the issues relevant to the prohibition of radiological weapons.
2. Contact Group A held 8 meetings from 4 March to 12 August 1991. In addition, the Co-ordinator held a number of informal consultations with delegations.
3. According to the guidelines set out during the first meeting of the Ad Hoc Committee, Contact Group A used as a basis for its substantive work the Co-ordinator's record as contained in the Report of the Ad Hoc Committee to the Conference on Disarmament in 1990 (CD/1027, Annex I, Attachment). The Contact Group reviewed the draft articles for a convention on the prohibition of radiological weapons contained therein. New alternatives were added to the texts on "Scope and Definitions" and new texts were elaborated on Review Conferences and Amendments under "Other Main Elements". The texts on "Verification and Compliance" and the "Annex" were also amended.
4. The amended Co-ordinator's record is attached to the report and reflects the current stage of the Contact Group's consideration of the question.
5. The Co-ordinator's record is not binding upon any delegation and does not preclude any delegation from introducing proposals to the text as a whole or the elements thereof at a later stage. It is recommended that it be appended to the Ad Hoc Committee's report to the Conference on Disarmament, as a basis for future work.

Attachment

DRAFT ARTICLES FOR A CONVENTION ON THE
PROHIBITION OF RADIOLOGICAL WEAPONS

PREAMBLE

The States Parties to this Convention, hereinafter referred to as the
"Parties to the Convention",

desiring to contribute to the realization of the purposes and
principles of the Charter of the United Nations,

determined to act with a view to achieving progress towards general and
complete disarmament under strict and effective international control,
including the prohibition and elimination of all types of weapons of
mass destruction as well as the development of new types of such
weapons as radiological weapons,

....

bearing in mind that the prohibition of radiological weapons is a step
in the process towards general and complete disarmament,

further bearing in mind longlasting effects of radioactive
contamination on living creatures as well as on the environment,

Have agreed as follows:

I. SCOPE

Paragraph 1

First alternative

Each Party to the Convention undertakes to prohibit radiological
weapons and hence never under any circumstances

(a) to disseminate deliberately any radioactive material,
including radioactive waste, for the purpose of causing injury, death,
damage or destruction by means of the radiation produced directly or
indirectly by the decay of such material,

(b) to develop, produce, stockpile, otherwise acquire, possess
or transfer any device specifically designed for the dissemination of
radioactive material prohibited under (a) of this paragraph.

Second alternative

[Each Party to the Convention undertakes not to develop, produce,
stockpile, otherwise acquire, possess, transfer or use under any
circumstances Radiological Weapons as defined in Section II.] 1/

1/ Views were expressed that the second alternative of paragraph one of
"Scope", combined with the second alternative of "Definitions" needed further
study by all delegations to see whether this or modified language would
provide a definition of a radiological weapon which would allow for the
deletion of the first alternative and of paragraphs one and two of "Other Main
Elements".

Paragraph 2

Each Party to the Convention undertakes to take any measures it considers necessary in accordance with its constitutional procedures and its international obligations anywhere under its jurisdiction and control to

- (a) prohibit and prevent any activity which would constitute a violation of the obligations undertaken by the Parties to the Convention,
- (b) prohibit the diversion and prevent the loss of radioactive material which could be used for purposes prohibited by this Convention.

Paragraph 3

Each Party to the Convention undertakes not to assist, encourage or induce anyone to engage in activities prohibited by the provisions of this Convention.

[II. DEFINITIONS]

First alternative

[For the purposes of this Convention the term "radiological weapon" means:

- (i) any device specifically designed for the dissemination of radioactive material to cause [as its primary effect] injury, death, damage or destruction by means of the decay of such material,
- (ii) any radioactive material specifically designed and prepared for employment, by its dissemination, to cause injury, death, damage or destruction by the decay of such material,
- (iii) any other radioactive material if used for employment by its dissemination to cause injury, death, damage or destruction by the decay of such material.]

Second alternative

[For the purpose of the Convention, the term "radiological weapon" means any device containing radioactive material or waste as its principal harmful element and specifically designed or used to cause injury, death, environmental damage, or destruction through the direct or indirect effects of ionizing radiation, without involving the critical assembly of any fissile material.] ^{1/}

^{1/} Views were expressed that the second alternative of paragraph one of "Scope", combined with the second alternative of "Definitions" needed further study by all delegations to see whether this or modified language would provide a definition of a radiological weapon which would allow for the deletion of the first alternative and of paragraphs one and two of "Other Main Elements".

III. PEACEFUL USES

Paragraph 1

Nothing in this Convention should be interpreted as affecting in any way

(a) the full exercise of the inalienable rights of all Parties to the Convention, without discrimination, to develop, acquire and use nuclear technology, equipment and materials for the peaceful use of nuclear energy and all peaceful applications of their nuclear programmes for economic and social development in accordance with their national priorities, needs and interests, bearing in mind the need to prevent the proliferation of nuclear weapons in all its forms. International co-operation in the peaceful uses of nuclear energy should be conducted under agreed and appropriate international safeguards applied on a non-discriminatory basis,

(b) the undertakings of Parties to the Convention to contribute to the fullest possible extent to international co-operation and assistance to ensure the development and effective implementation of adequate measures of protection for all States against the harmful effects of radiation.

Paragraph 2

Nothing in this Convention shall be interpreted as requiring or permitting a Party to the Convention to take measures which could affect the programmes of other States for peaceful uses of nuclear energy or technology for their economic or social development.

IV. OTHER MAIN ELEMENTS

Paragraph 1

The provisions of this Convention shall not apply to nuclear explosive devices or to radioactive material produced by them 1/.

Paragraph 2

Nothing in this Convention shall be interpreted as in any way legitimizing the development and the use of nuclear weapons or detracting from the obligations of States to refrain from the use or threat of use of such weapons 1/, 2/.

Paragraph 3

Parties to the Convention undertake to pursue urgently negotiations for the cessation of the nuclear arms race, the conclusion of effective measures to prevent the use or threat of use of nuclear weapons and the achievement of nuclear disarmament. 2/, 3/.

1/ Objections were raised against the need for this paragraph.

2/ A view was expressed that this subject might be better dealt with in the preambular part.

3/ Some delegations were of the view that such an undertaking was outside the purview of this Convention.

Paragraph 4

Nothing in this Convention shall be interpreted as in any way limiting or detracting from rules of international law, including

- (a) the Charter of the United Nations,
- (b) law applicable to armed conflicts,
- (c) obligations assumed by Parties to the Convention under other international agreements.

Paragraph 5

Ten years after entry into force of the Convention, or earlier if requested by a simple majority of States Parties, a Conference of States Parties to the Convention shall be held at Geneva, Switzerland. The Conference shall review the operation of the Convention with a view to assuring that the purposes of the preamble and the provisions of the Convention were being realized. Such review shall take into account any relevant technological developments.

At intervals of not less than five years thereafter, a simple majority of the States Parties to the Convention may obtain by submitting a proposal to this effect to the Depositary, the convening of a Conference with the same objectives.

If no Conference has been convened pursuant to paragraph 2 of this Article within ten years following the conclusion of a previous Conference, the Depositary shall solicit the views of all States Parties to this Convention, concerning the convening of such a Conference. If one third of the States Parties respond affirmatively, the Depositary shall take immediate steps to convene the Conference.

Paragraph 6

Each State Party to the Convention undertakes as it considers appropriate to provide or support technical and humanitarian assistance in accordance with the provisions of the Charter of the United Nations, to any State Party which so requests, harmed as a result of a violation of the Convention by another State Party or as a result of the use of radiological weapons by a State not party to the Convention.

For purposes of assistance, the services of appropriate international organisations may also be utilized. 1/

1/ A view was held that, depending upon a decision as to whether the Convention should establish a small secretariat, the services of such a secretariat may also be utilized.

Paragraph 7

Any State Party to this Convention may propose amendments to the Convention. The text of any proposed amendment shall be submitted to the Depositary, who shall promptly circulate it to all States Parties.

An amendment shall enter into force for all States Parties to this Convention which have accepted it, upon the deposit with the Depositary of instruments of acceptance by a majority of States Parties. Thereafter it shall enter into force for any remaining State Party on the date of deposit of its instrument of acceptance.

Paragraph 8

The Secretary-General of the United Nations shall be the Depositary of this Convention.

V. VERIFICATION AND COMPLIANCE

Paragraph 1

Parties to the Convention shall exchange to the fullest possible extent, bilaterally or multilaterally, information necessary to provide assurance of fulfilment of their obligations under the Convention.

Paragraph 2

Parties to the Convention undertake to consult one another and to co-operate in solving any problems which may be raised in relation to the objectives of, or in the application of, the provisions of the Convention.

Consultation and co-operation pursuant to this paragraph may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with its Charter. These international procedures may include the services of appropriate international organizations, as well as of a Committee of Experts. For these purposes the Depositary shall, within one month of the receipt of a request from any State Party to the Convention, convene a Committee of Experts.

Paragraph 3

Each Party to the Convention which has reasons to believe that any other Party to the Convention is acting in breach of the obligations deriving from the provisions of the Convention may lodge a complaint with the Depositary. Such a complaint shall include all relevant information as well as all possible evidence supporting its validity. In order to evaluate such information, the Depositary may convene the Committee of Experts.

The Depositary, assisted by the Committee of Experts, shall [to the extent possible] conduct an investigation of the alleged facts, whenever the evaluation of the information provided to him indicates that such an investigation is warranted.

The Committee shall transmit to the Depositary a summary of its findings of fact, incorporating all views and information presented to the Committee during its proceedings. The Depositary shall distribute the summary to all Parties to the Convention and to the Security Council and shall indicate his conclusions and suggestions for possible action. In case of urgency, the Depositary may request the Committee to submit its report within 10 days.

Paragraph 4

Each Party to the Convention undertakes to co-operate to the fullest possible extent with the Committee of Experts, in accordance with the provisions of the Charter of the United Nations.

Paragraph 5

The functions and rules of procedure of the Committee of Experts mentioned in the above Paragraphs 2, 3, and 4 are set out in the Annex, which constitutes an integral part of the Convention.

Paragraph 6

The provisions of Paragraph 3 of this section shall not be interpreted as affecting the rights and duties of Parties under the Charter of the United Nations, including bringing to the attention of the Security Council concerns about compliance with this Convention.

ANNEX

1. The Committee of Experts shall undertake to make appropriate findings of fact and provide expert views relevant to any problem raised pursuant to the Convention by the Party requesting the convening of the Committee. It may be requested by the Depositary to carry out investigations in case of complaints lodged by a Party to the Convention.

2. The work of the Committee of Experts shall be organized in such a way as to permit it to perform the functions set forth in Paragraph 1 of the Annex. In the process of such investigations, including fact-finding, every effort should be made to apply appropriate methods and procedures which are non-discriminatory and which do not unduly interfere with the internal affairs of other States or jeopardize their economic and social development. [The Committee of Experts shall be assisted by the Secretariat located in Geneva, whose functions will include technical and administrative services.]

3. The Depositary shall:

- compile and maintain a list of qualified experts whose services may be available for the work of the Committee of Experts in accordance with Paragraphs 1 and 2 of the Annex;
- base the list of qualified experts on proposals which had been made to him by Parties to the Convention;
- appoint members of the Committee of Experts from such a list with due regard to ensuring appropriate geographical balance and to the character of the question involved.

4. The Depositary or his representative shall serve as the Chairman of the Committee.

5. Each expert may be assisted at meetings by one or more advisers.

6. Each expert shall have the right, through the Chairman, to request from States, and from international organizations, such information and assistance as the expert considers desirable for the accomplishment of the Committee's work. Each Party undertakes not to use deliberate concealment measures which impede verification of compliance with the Convention.

ANNEX II

Report of Contact Group B

1. In accordance with the decision taken by the Ad Hoc Committee on Radiological Weapons at its 1st meeting on 25 February 1991, Contact Group B was re-established to continue consideration of the issues relevant to the prohibition of attacks against nuclear facilities.
2. Contact Group B held 8 meetings from 18 March to 12 August 1991. In addition, the Co-ordinator held a number of informal consultations with delegations.
3. According to guidelines set out during the 1st meeting of the Ad Hoc Committee, Contact Group B used as a basis for its substantive work the Co-ordinator's record as contained in the Report of the Ad Hoc Committee to the Conference on Disarmament in 1990 (CD/1027, Annex II, Attachment). The Contact Group reviewed the possible elements relevant to the prohibition of attacks against nuclear facilities contained therein. A number of modifications were made to the Co-ordinator's record, focused mainly on the questions of Register and Verification and Compliance.
4. The amended Co-ordinator's record is attached to the report and reflects the current stage of the Contact Group's consideration of the question.
5. The Co-ordinator's record is not binding upon any delegation and its main purpose is to facilitate future consideration. It is recommended that it be appended to the Ad Hoc Committee's report to the Conference on Disarmament, as a basis for future work.

Attachment

POSSIBLE ELEMENTS RELEVANT TO THE PROHIBITION OF ATTACKS
AGAINST NUCLEAR FACILITIES 1/ 2/

I. SCOPE

Paragraph 1

First alternative

Each State Party undertakes never under any circumstances to attack nuclear facilities covered by this Treaty.

Second alternative

Each State Party undertakes never under any circumstances to attack or to threaten to attack any nuclear facility.

Third alternative 3/

Each State Party undertakes never under any circumstances to release and disseminate radioactive substances by attacking nuclear facilities covered by this Treaty.

Paragraph 2

Each State Party undertakes not in any way to assist, encourage or induce any person, State, group of States, or international organization to act in contravention of this Treaty.

1/ This record does not prejudice the eventual positions of delegations relating to the question of "linkage", or the positions of delegations on the question of the need of having additional legal protection for nuclear facilities. As to the latter, a view was expressed that additional discussion on existing international agreements pertaining to the question is needed.

2/ One delegation stated that, apart from the fact that the elements listed were controversial, the third alternative under Scope, paragraph 1 of the Definitions and the sections on Criteria and Special Marking were not essential to the elaboration of a convention. The section on Special Marking could have been recast within the section on Register. That was not, however, the case of the other elements mentioned, particularly the section on Criteria, which, in its opinion, seemed incompatible with the rule of *jus cogens* in article 2, paragraph 4, of the Charter of the United Nations.

3/ Some delegations stated that the third alternative of Scope based on the criterion of mass destruction read in conjunction with the first alternative of paragraph 2 of Definitions, paragraph 1 of Criteria, paragraph 1 to 3, the first alternative of paragraph 4, paragraphs 5 and 6 of Register as well as Special Marking in Paragraph 1 under Other Main Elements constitute one complete and consistent set of elements to be included in a draft Treaty.

II. DEFINITIONS

Paragraph 1

For the purposes of this Treaty, the term "attack" means any act by a State which is designed to cause or causes, directly or indirectly:

- (i) any damage to, or the destruction of, a nuclear facility; or
- (ii) any interference, interruption, impediment, stoppage or breakdown in the operation of a nuclear facility; or
- (iii) any injury to, or the death of, any of the personnel of a nuclear facility.

Paragraph 2

First alternative

For the purpose of this Treaty, the term "nuclear facilities" means: 1/

- (i) Nuclear reactors;
- (ii) Intermediate spent fuel storages;
- (iii) Reprocessing plants;
- (iv) Waste deposits, including temporary waste storages;
- (v) Installations for production or use of important and intensive sources of gamma radiation; 2/

which are included in a Register maintained by the Depositary.

Second alternative

A nuclear facility means a nuclear reactor or any other facility for the production, handling, treatment, processing or storage of nuclear fuel or other nuclear material.

1/ A suggestion was made to add two further categories after "(iii) Reprocessing plants;"

- (iv) Nuclear fuel processing plants;
- (v) Uranium enrichment plants.

2/ A view was expressed that this provision should be further refined.

III. CRITERIA

Paragraph 1

The nuclear facilities mentioned in paragraph 2 of Definitions shall meet the following specifications: 1/

- (i) They shall be stationary on land; 2/ 3/
- (ii) Nuclear reactors; designed for a thermal power which could exceed 1 [10] Megawatt, shall have reached their first criticality and shall not have been decommissioned;
- (iii) Intermediate spent fuel storages; designed for storing radioactive material exceeding 10^{17} [10^{18}] Bq;
- (iv) Reprocessing plants; designed for containing radioactive material exceeding 10^{17} [10^{18}] Bq;
- (v) Waste deposits: containing radioactive material exceeding 10^{17} [10^{18}] Bq;
- (vi) Installations for production or use of intensive sources of gamma radiation: designed to contain radioactive material whose gamma-radiation-dissipated power is equal to or greater than 6×10^{16} [10^{17}] Bq x Mev.

Paragraph 2

Additional specification suggested to the above specifications:

Nuclear facilities mentioned in paragraph 2 of Definitions which are under the safeguards of the International Atomic Energy Agency are covered by the provision of this Treaty.

1/ Views were expressed that nuclear facilities mentioned in paragraph 2 of Definitions shall be used for peaceful purposes and subject to IAEA safeguards.

2/ Views were expressed that nuclear facilities stationed in territorial waters and the exclusive economic zones should also be considered.

3/ Views were expressed that such nuclear facilities should not belong to weapons systems.

IV. REGISTER

Paragraph 1

The Depositary shall establish, on the basis of initial communications by States Parties, as set out in paragraph 2 below, a comprehensive Register of nuclear facilities covered by this Treaty, and shall maintain this Register on the basis of subsequent communications on changes, as set out in paragraph 5 below.

Certified copies of the Register shall be transmitted to each State Party ... days after entry into force of the Treaty.

Certified copies of the Register in its entirety including all modifications shall be transmitted to each State Party at intervals of ... and be available to States Parties at any time in the offices of the Depositary.

Paragraph 2

States Parties requesting that nuclear facilities under their jurisdiction be included in the Register shall for each such facility communicate to the Depositary the following written information:

- (a) Identification of the type of nuclear facility;
- (b) Detailed specifications in accordance with Paragraph 1 of Criteria of this Treaty;
- (c) Details on the exact geographical location of the nuclear facility.

Paragraph 3 1/

Upon receipt of a request for an inclusion in the Register, the Depositary shall without delay initiate procedures to confirm that the information contained in the request is correct:

- (a) Through, to the extent possible, documentation from the IAEA; and/or
- (b) Through other means, including a mission to the facility, when necessary.

For the purpose of carrying out the procedures in paragraph 3 (a) above the Depositary may, as it deems necessary, enter into agreement with the IAEA.

For the purpose of carrying out the procedures in paragraph 3 (b) above the Depositary shall, with the co-operation of States Party to the Treaty, compile and maintain a list of qualified experts, whose services could be made available to undertake such missions.

1/ A view was expressed that this provision calls for further

Paragraph 4

First alternative

The Depositary shall include the facility in the Register as well as the information required by paragraph 2 of this section, as soon as the information given in the request has been confirmed according to paragraph 3 above, and shall immediately notify States Parties to the Treaty of the aforesaid inclusion.

Second alternative

The Depositary shall include the facility in the Register as well as the information required by paragraph 2 of this section and shall immediately notify States Party to the Treaty of aforesaid inclusion.

Paragraph 5

A State Party shall inform the Depositary, within ...days/months, of any change in the information it had provided for inclusion in the Register. Upon the receipt of such information, the Depositary shall act, mutatis mutandi, in accordance with the procedures outlined in paragraphs 3 and 4 of this section.

Paragraph 6 1/

The costs for implementing these procedures shall be borne by the requesting State.

V. VERIFICATION AND COMPLIANCE

Paragraph 1

States Parties to this Treaty shall make every possible effort to consult one another and to co-operate in solving any problems which may be raised in relation to the objectives of, or in the application of the provisions of, the Treaty.

Paragraph 2

A State Party may lodge a complaint with the Depositary in case it believes that any other State Party is in breach of obligations deriving from this Treaty. Such complaint shall include all relevant information and all possible evidence supporting the validity of the complaint.

1/ There was general agreement that the modalities as well as the

Paragraph 3First alternative

Within ... days of the receipt of a complaint from any State Party the Depositary shall initiate an investigation to ascertain facts relevant to the complaint. Such an investigation may include a fact-finding mission to or at the site of the nuclear facility concerned and to any other site as may be appropriate. The fact-finding mission shall submit its findings to the Depositary within ... days.

Second alternative

Within ... days of the receipt of a complaint from any State Party the Depositary shall initiate an investigation to ascertain facts relevant to the complaint. Such an investigation shall include a fact-finding mission to or at the site of the nuclear facility concerned and to any other site as may be appropriate. The fact-finding mission shall submit its findings to the Depositary within ... days.

Paragraph 4

For purposes of carrying out a fact-finding mission the Depositary shall maintain a list of qualified experts, selected on as wide a geographical basis as possible, whose services may be available to undertake such missions.

Paragraph 5

States Parties undertake to co-operate in carrying out the investigation which the Depositary may initiate on a complaint received from any State Party. The Depositary shall inform the States Parties of the results of the investigation. A copy of the report on the investigation shall be transmitted also to the Security Council and the General Assembly of the United Nations.

Paragraph 6First alternative

The Depositary shall, upon request of a State Party, convene the Conference of States Parties to consider the report on the investigation as well as possible courses of action.

Second alternative

The Depositary shall immediately convene the Conference of States Parties to consider the report on the investigation and to adopt such measures as may be appropriate.

Paragraph 7

First alternative

The continuing application of IAEA safeguards at a nuclear facility will form an essential part of the arrangements to verify that the facility is a peaceful nuclear facility within the meaning of the Treaty. 1/ 2/

Second alternative

The determination that a facility is and remains a peaceful nuclear facility within the meaning of the Treaty shall be made by the application of IAEA safeguards. 1/ 2/

Third alternative

The application of IAEA safeguards to a nuclear facility shall be of no relevance to the verification of compliance with obligations assumed by States Parties to this Treaty.

VI. OTHER MAIN ELEMENTS

Paragraph 1

A State Party may mark its nuclear facilities included in the Register with Special Marking.

Paragraph 2 3/ 4/ 5/

States Parties undertake to provide or support assistance to any State Party harmed as a result of the violation of the Treaty.

Paragraph 3

Provisions of this Treaty are without prejudice to the obligations of State Parties undertaken in other international instruments relevant to the subject of this Treaty.

Paragraph 4

The Secretary-General shall be designated as Depositary of this Treaty.

1/ It was stated that the application of IAEA safeguards was irrelevant to the objectives of this Treaty and that if anyway addressed, the issue belonged under the provisions for inclusion in the Register.

2/ The view was expressed that the application of IAEA safeguards could not verify that a nuclear facility was a peaceful one but rather that nuclear material remained in peaceful use.

3/ A view was expressed that the obligation of States Parties to provide assistance was limited to the radiological damage caused by an attack.

4/ Views were expressed that the assistance to be provided or supported to any harmed State Party should not be limited to cases of violations by States Parties, but should also cover harm inflicted by attacks